STANFORD UNIVERSITY

REGISTER FOR 1929-1930

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STANFORD UNIVERSITY BULLETIN

THIRTY-NINTH

ANNUAL REGISTER

1929-30

"The beneficence of the Creator toward man on earth, and the possibilities of humanity are one and the same."—LELAND STANFORD.

"A generous education is the birthright of every man and woman in America."

—DAVID STARR JORDAN.

STANFORD UNIVERSITY, CALIFORNIA
PUBLISHED BY THE UNIVERSITY

STANFORD
UNIVERSITY
PRESS

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OFFICE DIRECTORY

[The rooms in the Inner Quadrangle are numbered consecutively, beginning at the left of the main entrance, ten numbers being allotted to each building. In the Outer Quadrangle forty numbers are allotted to each of the larger buildings and ten numbers to each one-story building, beginning with the Assembly Hall (number 120). The Administration Building is on the north façade of the Outer Quadrangle. The Engineering Buildings south of the Quadrangles begin with number 500. The Library is the central building in the second Quadrangle group. The Chemistry Building is on the west avenue between the Quadrangles and the Museum. Anatomy and Bacteriology are in the old Museum Building.]

Administration Building:

PRESIDENT, Room 165.

COMPTROLLER, Room 162.

REGISTRAR, Room 164.

DEAN OF MEN, Room 161.

DEAN OF WOMEN, Room 163*a*.

ACADEMIC SECRETARY AND ALUMNI SECRETARY, ROOM 174.

APPOINTMENT SECRETARY, ROOM 170.

DEAN OF SUMMER QUARTER, Room 173.

LOWER DIVISION COMMITTEE, Room 164.

COMMITTEE ON PUBLIC HEALTH, Room 164.

CITIZENSHIP, Room 172.

The various departmental offices are given in the *Time Schedule* and in the *Directory of Officers and Students.*

The University Postoffice is *Stanford University, California.*

The University Telephone Office is *Palo Alto* (office and departmental telephones "Palo Alto 6161" with local numbers added).

The University Railway Station and Telegraph and Express Offices are *Palo Alto, California.*

Requests for *University Bulletins,* blanks, and other printed matter, and inquiries regarding terms of admission, advanced standing, etc., should be addressed to THE REGISTRAR, *Stanford University, California.*

1929

JULY

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UNIVERSITY CALENDAR

1929

AUTUMN QUARTER

Sept.	16–20	Monday–Friday	College Entrance Board Examinations.
Sept.	27	Friday	College Aptitude Test.
Sept.	30	Monday	Lower Division Registration (new students).
Oct.	1	Tuesday	Registration for Autumn Quarter
Oct.	2	Wednesday	Instruction begins.
Oct.	4	Friday	Conferring of Degrees.
Oct.	6	Sunday	Matriculation Sunday.
Oct.	22 }		Make-up Examinations.
Dec.	20 }		
Nov.	28 }	Thursday–Sunday	Thanksgiving Recess.
Dec.	1 }		
Dec.	17–20	Tuesday–Friday	End-Quarter Examinations.

1930

WINTER QUARTER

Dec.	31	Tuesday [1929]	College Aptitude Test.
Jan.	2	Thursday	Registration for Winter Quarter.
Jan.	3	Friday	Instruction begins.
Jan.	10	Friday	Conferring of Degrees
Jan.	23 }		Make-up Examinations.
Mar.	21 }		
Feb.	22	Saturday	Washington's Birthday (Holiday).
Mar.	9	Sunday	Founders' Day.
Mar.	18–21	Tuesday–Friday	End-Quarter Examinations.

SPRING QUARTER

Mar.	29	Saturday	College Aptitude Test.
Mar.	31	Monday	Registration for Spring Quarter.
April	1	Tuesday	Instruction begins.
April	4	Friday	Conferring of Degrees.
April	21 }		Make-up Examinations.
June	11 }		
June	7–11	Saturday–Wednesday	End-Quarter Examinations
June	14	Saturday	Senior Class Day
June	15	Sunday	Baccalaureate Sunday
June	16	Monday	Commencement

SUMMER QUARTER

June	16–21	Monday–Saturday	College Entrance Board Examinations.
June	17	Tuesday	College Aptitude Test.
June	19	Thursday	Registration for Summer Quarter
June	20	Friday	Instruction begins.
July	4	Friday	Independence Day (Holiday).
Aug.	28–30	Thursday–Saturday	End-Quarter Examinations.

ADMINISTRATIVE OFFICERS

BOARD OF TRUSTEES

[The figures in parentheses indicate year of beginning of service]

Wallace McKinney Alexander (1924)...215 Market St., San Francisco
*Frank Bartow Anderson (1912)
California and Sansome Sts., San Francisco
Harry Chandler (1923).....*Times* Office, Los Angeles
Leland Whitman Cutler (1920)...Financial Center Bldg., San Francisco
Frank Prentiss Deering (1916)...325 Standard Oil Bldg., San Francisco
Joseph Donohoe Grant (1891).....114 Sansome St., San Francisco
Thomas Tingey Craven Gregory (1919)...Balfour Bldg., San Francisco
Herbert Clark Hoover (1912).....Washington, D.C.
Timothy Hopkins (1885).....111 Sutter St., San Francisco
Ira Shell Lillick (1923).....900 Balfour Bldg., San Francisco
†Frank Delino Madison (1929).....225 Bush St., San Francisco
*Christian Otto Gerberding Miller (1923)
433 California St., San Francisco
William Mayo Newhall (1912).....260 California St., San Francisco
John Thomas Nourse (1920).....2 State Bldg., San Francisco
†George Joseph Presley (1929).....315 Montgomery St., San Francisco
Paul Shoup (1923).....Southern Pacific Bldg., San Francisco
Marcus Cauffman Sloss (1920).....Mills Bldg., San Francisco

OFFICERS OF THE BOARD

President: William Mayo Newhall
Vice-Presidents: Joseph Donohoe Grant, Marcus Cauffman Sloss
Secretary-Treasurer: Ira Shell Lillick
Assistant Secretary and Assistant Treasurer: Frank Prentiss Deering

STANDING COMMITTEES OF THE BOARD

Finance: *Miller, Cutler, *Anderson, Grant, Gregory, Hopkins, Newhall, Shoup
University: Lillick, Alexander, Chandler, Deering, Hoover, Newhall, Nourse, Sloss
Rules: Nourse, Lillick, Sloss
Campus: Cutler, Hopkins, Nourse

* September 1 to November 14, 1929; August 14 to 31, 1930.
† December 19, 1929, to July 10, 1930.

THE STANFORD NATIONAL BOARD

Elmer Jefferson Bissell.....Glendissary Lane, Santa Barbara
Benjamin Franklin Bledsoe.....649 Roosevelt Bldg., Los Angeles
Floyd Cromwell Brown.....704 Johnstone Ave., Bartlesville, Okla.
Robert Willis Campbell.....208 S. La Salle St., Chicago, Ill.
Nathaniel Allen Carle....Public Service Production Co., Newark, N.J.
Strabo Vivian Claggett.....1820 Washington St., Auburndale, Mass.
William Henry Crocker...Crocker First National Bank, San Francisco
Walter F. Dillingham.....Honolulu, T.H.
Milton Esberg.....601 Third St., San Francisco
Robert N. Frick.....Box 1708, Stanford University
Henry Abraham Frye.....809 Crozer Bldg., Philadelphia, Pa.
William Hastings Harrelson.....2610 Filbert St., San Francisco
George Herbert Herrold.....2251 Langford Ave., St. Paul, Minn.
Francis Valentine Keesling.....de Young Bldg., San Francisco
William Koerner.....Magna Copper Co., Superior, Ariz.
Frederick Rodgers Lanagan.....570 Williams St., Denver, Colo.
Abraham Lewis.....2211 Kamehameha Ave., Honolulu, T.H
Kenneth Mackintosh.....1701 Smith Bldg., Seattle, Wash.
Charles McFerson Mannon.....Ukiah
George Thomas Marye.....Financial Center Bldg., San Francisco
William Metcalf Parkin.....5577 Hampton St., Pittsburgh, Pa.
Francis Price.....Box 680, Santa Barbara
Henry Mauris Robinson.First National Bank of Los Angeles, Los Angeles
Charles A. Shurtleff.....Menlo Park
Homer Roberts Spence.....Hotel Alameda, Alameda
Lester Douglas Summerfield.....237 Clay St., Reno, Nev.
Clyde Arthur Swigart.....Standard Oil Co., Bakersfield
Charles Collins Teague.....Santa Paula
William Henry Thomas.....725 Knott St., Portland, Ore.
William L. Valentine.....1020 Security Bldg., Los Angeles
Arthur Benjamin West.....Edgemont, Riverside

EXECUTIVE OFFICERS

[Office and office hours in parentheses; MTWThF unless otherwise specified. "Adm." before office number indicates Administration Bldg.; "a," Anatomy; "b," Bacteriology; "c," Chemistry; "g," Encina Gymnasium; "p," Press.]

President: Ray Lyman Wilbur. (Adm. 165.)
Acting President: Robert Eckles Swain. (Adm. 165, 10–12, 2–5.)
Comptroller: Almon Edward Roth. (Adm. 162, MWF 10–12, 2–4, S 10–12.)
Registrar: John Pearce Mitchell. (Adm. 164, 8–12, 1–4, S 8–12.)
Dean of Women: Mary Yost. (Adm. 163a, 10–12.)
Dean of Men: George Bliss Culver. (Adm. 161a, 8:30–11:15, 1:30–4.)
Chaplain: David Charles Gardner. (Vestry.)

Academic Secretary: John Ezra McDowell. (Adm. 174.)
Anatomy: Arthur William Meyer. (a2.)
Appointment Secretary: Elizabeth Burritt Snell. (Adm. 170.)
Bacteriology and Experimental Pathology: Edwin William Schultz. (b1.)
Biological Sciences, School of: Ernest Gale Martin. (482.)
Botany: George James Peirce. (466.)
Business, Graduate School of: William Eugene Hotchkiss, Dean. (422.)
Chemistry: Robert Eckles Swain. (c10.)
Citizenship: Edgar Eugene Robinson, Director. (Adm. 172.)
Classical Literature: Augustus Taber Murray. (257.)
Economics: Murray Shipley Wildman. (223.)
Education, School of: Ellwood Patterson Cubberley, Dean. (51.)
Engineering, Civil: John Charles Lounsbury Fish. (266A.)
Engineering, Electrical: Harris Joseph Ryan. (505.)
Engineering, Mechanical: Arthur Boquer Domonoske. (260.)
Engineering, Mining: Theodore Jesse Hoover. (530.)
Engineering, School of: Theodore Jesse Hoover, Dean. (530.)
English: William Dinsmore Briggs. (206.)
Food Research: Alonzo Englebert Taylor. (32.)
Geology: Eliot Blackwelder. (340.)
Germanic Languages: William Alpha Cooper. (116.)
Graduate Study: Carl Lucas Alsberg, Dean. (34.)
Graphic Art: Arthur Bridgman Clark. (314.)
History: Edgar Eugene Robinson. (Adm. 172.)
Hoover War Library: Ralph Haswell Lutz. (215.)
Hopkins Marine Station: Walter Kenrick Fisher.
Journalism: Everett Wallace Smith. (p1.)
Law, School of: Marion Rice Kirkwood, Dean. (1.)

Letters, School of: Hardin Craig. (209A.)
Libraries, University: Nathan Van Patten, Director.
Mathematics: Hans Frederik Blichfeldt. (63.)
Medical Adviser of Men: Thomas Andrew Storey. (g15.)
Medical Adviser of Women: Bertha Stuart Dyment. (600.)
Medicine, Department of: Arthur Leonard Bloomfield. (San Francisco.)
Medicine, School of: William Ophüls, Dean. (San Francisco.)
Memorial Church: David Charles Gardner, Chaplain.
Military Science and Tactics: E. R. Warner McCabe. (539.)
Museum: Pedro J. Lemos, Director.
Obstetrics and Gynecology: Alfred Baker Spalding. (San Francisco.)
Pathology: William Ophüls. (San Francisco.)
Pediatrics: Harold Kniest Faber. (San Francisco.)
Pharmacology: Paul John Hanzlik. (San Francisco.)
Philosophy: Henry Waldgrave Stuart. (94A.)
Physical Education (Men): Thomas Andrew Storey. (g15.)
Physical Education (Women): Bertha Stuart Dyment. (600.)
Physical Sciences, School of: David Locke Webster. (389.)
Physics: David Locke Webster. (389.)
Physiology: Ernest Gale Martin. (482.)
Political Science: Edwin Angell Cottrell. (25A.)
Psychology: Lewis Madison Terman. (399.)
Public Health and Preventive Medicine: Ernest Charles Dickson. (San Francisco.)
Public Speaking: Lee Emerson Bassett. (203B.)
Romanic Languages: Oliver Martin Johnston. (246.)
Social Sciences, School of: Murray Shipley Wildman. (223.)
Stanford National Board: John Armstrong Sellards, Secretary. (Adm. 173.)
Summer Quarter: John Armstrong Sellards, Dean. (Adm. 173.)
Surgery: Emile Frederic Holman. (San Francisco.)
Zoölogy: John Otterbein Snyder. (443.)

STANDING COMMITTEES OF ACADEMIC COUNCIL

[The first-named member in each committee is Chairman, unless otherwise indicated. The term of office of members of the Executive Committee begins immediately upon election (in May); of all other standing committees, September 1.]

ADVISORY BOARD

Alsberg, Blackwelder, Cathcart, Fish, Kirkwood, Meyer, Murray, Swain (Chairman), Wildman.

ADMINISTRATIVE COMMITTEES

1. Student Affairs: Moser, Danforth, Harrison, E. G. Martin, Moreno.
2. Athletics (Men): Storey, Mitchell, Owens, E. W. Smith, Thomas.
3. Public Exercises: Robinson, W. D. Allen, Bassett, Cottrell, Guérard, McDowell, Peirce, Sellards, Seward.
4. Public Health: Storey, W. H. Brown, Culver, Dyment, Yost.
5. Scholarship: Vernier, Culver, Dietrich, E. G. Martin, Miles, Mitchell, Storey, Yost.
6. Vocational Guidance: Strong, J. G. Brown, Culver, B. M. Green, Haley, Hays, Kirkwood, Mitchell, Proctor, L. B. Reynolds, Yost.
7. Lower Division: Mitchell, C. G. Allen, Barclay, Brand, B. O. Brown, Dietrich, Haley, Huggins, Kennedy, Kindy, Miles, Robinson, Sears, Snyder, Thomas, Yost.
8. Research: Blackwelder, Barnett, Becking, Blichfeldt, J. S. Davis, Hoover, Hotchkiss, McBain, Meyer, Ophüls, Seward, G. M. Smith, L. M. Terman, Webster, Wilbur.

ACADEMIC COMMITTEES

1. Executive Committee: Wilbur, Blackwelder, Briggs, Cathcart, Fish, Foster, Hoover, McDowell, Meyer, Mitchell, Peirce, Swain, Wildman.
2. Admission and Advanced Standing: Mitchell, Foster, Miles, Strong, Tickell, Yost.
3. Registration: Mitchell, W. H. Brown, Culver, Harriman, Niles.
4. Graduation: Blackwelder, Dowrie, H. J. Hall, Lutz, Mitchell.
5. Schedule and Examinations: Osborne, Baumberger, B. O. Brown, Mitchell, F. E. Terman.
6. Graduate Study: Alsberg, Briggs, Guérard, Kirkwood, Marx, Meyer, Peirce, Ryan, J. P. Smith, H. W. Stuart, Wildman.
7. Library: Kirkwood, Brand, Cooper, Cottrell, Peirce.
8. University Publications: W. H. Davis, Hoover, Jackson, McBain, Treat.
9. Independent Study Plan: Robinson, Blackwelder, Cottrell, Guérard, Kennedy, E. G. Martin, H. W. Stuart, Swain, L. M. Terman.

OFFICERS OF INSTRUCTION AND ADMINISTRATION

[Name; residence; postoffice; residence telephone in parentheses; title. The capital letter following residence address indicates location of street (P = Palo Alto, M = Mayfield, MP = Menlo Park, SJ = San Jose, SF = San Francisco, etc.); where capital letter is omitted the residence in all cases is *Stanford University*. The small letter following the capital indicates the postoffice address; where small letter is omitted the postoffice in all cases is *Stanford University*. The numbers (or letters) in italics after the residence address are *Stanford University* postoffice box numbers (or box letters); the asterisk (*) following the address indicates that mail should be addressed to the School, Department, or Office concerned. The numbers 1, 2, 3, 4 in parentheses after name of instructor indicate quarters on duty, i.e., autumn, winter, spring, summer, respectively. Brackets indicate absence on leave for the year. The dagger (†) marks the names of men who are married.]

EMERITUS LIST

ANDERSON, MELVILLE BEST — 1733 W. Twenty-third, Los Angeles-la
Professor of English Literature, Emeritus

A.M., Butler College, 1877; LL.D., Aberdeen, 1906; Dr., University of Padua, 1922; Litt.D., Mills, 1923. At Stanford since 1891, Emeritus since 1910.

ANGELL, FRANK — 1200 Bryant, P-p (PA 21417)
Professor of Psychology, Emeritus

B.S., Vermont, 1878; Ph.D., Leipzig, 1891; L.H.D., Vermont, 1892. At Stanford since 1892, Emeritus since 1922.

†BARKAN, ADOLPH — Mill Valley-mv
Professor of Structure and Diseases of Eye, Ear, and Larynx, Emeritus

M.D., University of Vienna, 1866; LL.D., University of Glasgow, 1901. At Stanford since 1909, Emeritus since 1911.

†BLAISDELL, FRANK ELLSWORTH — 207 Gough, SF-sf (Hemlock 4060)
Professor of Surgery, Emeritus

M.D., Cooper Medical College, 1889. At Stanford since 1910, Emeritus since 1927.

†BOEZINGER, BRUNO — Menlo Heights-*1311* (PA 8688)
Associate Professor of German, Emeritus

A.B., Fort Worth University, 1894, A.M., 1895; Ph.D., Stanford, 1910. At Stanford since 1906, Emeritus since 1926.

CAMPBELL, DOUGLAS HOUGHTON — 538 Mayfield-*943* (PA 4424)
Professor of Botany, Emeritus

Ph.M., Michigan, 1882, Ph.D., 1886. At Stanford since 1891, Emeritus since 1925.

CLARK, GEORGE THOMAS — 1729 Emerson, P-p (PA 21353)
Director of University Libraries, Emeritus

B.S., California, 1886. At Stanford since 1907, Emeritus since 1928.

†COOPER, CHARLES MINER — 2550 Buchanan, SF-sf (Fillmore 1821)
Clinical Professor of Medicine, Emeritus

M.B., Ch.B., Edinburgh, 1897. At Stanford since 1918, Emeritus since 1922.

†DREW, ELMER REGINALD — 561 Center, P-p (PA 8454)
Associate Professor of Physics, Emeritus

B.S., California, 1888; Ph.D., Cornell, 1903. At Stanford since 1905, Emeritus since 1928.

†Durand, William Frederick 623 Cabrillo* (PA 21626)
Professor of Mechanical Engineering, Emeritus
Graduate, U.S. Naval Academy, 1880; Ph.D., Lafayette, 1888; LL.D., California, 1924. At Stanford since 1904, Emeritus since 1924.

†Elliott, Orrin Leslie 756 Santa Ynez (PA 4427)
Registrar, Emeritus
Ph.B., Cornell, 1885, Ph.D., 1890. At Stanford since 1891, Emeritus since 1925.

Elmore, Jefferson 552 Alvarado-*1059* (PA 4653)
Professor of Classical Literature, Emeritus
A.B., Stanford, 1895, A.M., 1895, Ph.D., 1901. At Stanford since 1898, Emeritus since 1928.

Fairclough, Henry Rushton 1005 Bryant, P-p
Professor of Classical Literature, Emeritus
A.B., Toronto, 1883, A.M., 1886; Ph.D., Johns Hopkins, 1896; Litt.D., Toronto, 1922. At Stanford since 1893, Emeritus since 1927.

†Franklin, Edward Curtis 662 Mirada (PA 8219)
Professor of Organic Chemistry, Emeritus
B.S., Kansas, 1888, M.S., 1890; Ph.D., Johns Hopkins, 1894; Sc.D., Northwestern, 1925, Western Reserve, 1926; LL.D., Wittenberg, 1927. At Stanford since 1903, Emeritus since 1929.

†Green, Rufus Lot 541 Salvatierra (PA 7190)
Professor of Mathematics, Emeritus
B.S., Indiana, 1885, A.M., 1889. At Stanford since 1893, Emeritus since 1927.

Griffin, James Owen 570 Alvarado (PA 4533)
Professor of German, Emeritus
Graduate, Pennsylvania State Normal School, 1873. At Stanford since 1891, Emeritus since 1917.

†Hoskins, Leander Miller 1240 Waverley, P-p (PA 21214)
Professor of Applied Mathematics, Emeritus
B.C.E., and B.S., Wisconsin, 1883, M.S., 1885, C.E., 1887. At Stanford since 1892, Emeritus since 1925.

†Jenkins, Oliver Peebles 533 Lasuen-*1515* (PA 6038)
Professor of Physiology and Histology, Emeritus
A.B., Moore's Hill College, 1869, A.M., 1872; M.S., Indiana, 1886, Ph.D., 1889; LL.D., Moore's Hill College, 1916. At Stanford since 1891, Emeritus since 1916.

†Jordan, David Starr Serra House (PA 4333)
Chancellor, Emeritus
M.S., Cornell, 1872; M.D., Indiana Medical College, 1875; Ph.D., Butler College, 1878; LL.D., Cornell, 1886, Johns Hopkins, 1902, Illinois College, 1903, Indiana, 1909, California, 1915, Western Reserve, 1915. President of the University, 1891–1913, Chancellor, 1913–16, Emeritus since 1916.

†McKee, Albert Brown Woodside, RC-RFD, rc (Redwood 1707F12)
Clinical Professor of Ophthalmology, Emeritus
Ph.B., University of the Pacific, 1883, Ph.M., 1886; M.D., Cooper Medical College, 1886. At Stanford since 1912, Emeritus since 1928.

Martin, Lillien Jane 821–822 Shreve Bldg., SF-sf (Sutter 3489)
Professor of Psychology, Emeritus
A.B., Vassar, 1880; M.L.A., and honorary Ph.D., Bonn, 1913. At Stanford since 1899, Emeritus since 1916.

†Marx, Charles David 357 Kingsley, P-*1091* (PA 7919)
Professor of Civil Engineering, Emeritus

B.C.E., Cornell, 1878; C.E., Karlsruhe, Polytechnicum, 1881; LL.D., California, 1918; Dr.Ing.h.c., Karlsruhe, 1925. At Stanford since 1891, Emeritus since 1923.

Mosher, Clelia Duel 764 Santa Ynez (PA 8613)
Professor of Personal Hygiene, Emeritus

A.B., Stanford, 1893, A.M., 1894; M.D., Johns Hopkins, 1900. At Stanford, 1893–96, and since 1910, Emeritus since 1929.

†Price, George Clinton 532 Alvarado (PA 4520)
Professor of Zoölogy, Emeritus

B.S., De Pauw, 1890; Ph.D., Stanford, 1897. At Stanford since 1892, Emeritus since 1925.

†Rendtorff, Karl Gustav Carmel-Box 1402, c
Professor of German, Emeritus

A.M., Stanford, 1894, Ph.D., 1896. At Stanford since 1894, Emeritus since 1929.

†Rigdon, Rufus Lee 1617 Broderick, SF-sf (Fillmore 2285)
Clinical Professor of Genito-Urinary Surgery, Emeritus, and Consultant in Urology to Lane Hospital

M.D., Cooper Medical College, 1887. At Stanford since 1912, Emeritus since 1925.

†Rogers, Frederick John 794 Melville, P-p (PA 3275)
Professor of Physics, Emeritus

M.S., Cornell, 1891. At Stanford since 1900, Emeritus since 1929.

†Sanford, Fernando 450 Kingsley, P-p (PA 6418)
Professor of Physics, Emeritus

B.S., Carthage College, 1879, M.S., 1882, ScD., 1920. At Stanford since 1891, Emeritus since 1919.

Stanley, Edward John 269 Hawthorne, P-p (PA 7989)
Assistant Professor of Mechanical Engineering, Emeritus

At Stanford since 1901, Emeritus since 1927.

†Stillman, Stanley Belvedere-b (B 41)
Professor of Surgery, Emeritus, and Consultant in Surgery to Lane Hospital

M.D., Cooper Medical College, 1889. At Stanford since 1909, Emeritus since 1926.

†Willis, Bailey 539 Lasuen-*1365* (PA 5427)
Professor of Geology, Emeritus

E.M., Columbia School of Mines, 1878, C.E., 1879; Hon. Ph.D., University of Berlin, 1910. At Stanford since 1915, Emeritus since 1922.

†Wing, Charles Benjamin 345 Lincoln, P-p (PA 5463)
Professor of Structural Engineering, Emeritus

C.E., Cornell, 1886. At Stanford since 1892, Emeritus since 1929.

ACTIVE LIST

†Abrams, LeRoy (123) 653 Cabrillo (PA 5526)
Professor of Botany, and Director of Dudley Herbarium

A.B., Stanford, 1899, A.M., 1902; Ph.D., Columbia, 1910. Acting Professor of Botany, University of Idaho, 1899–1900; Assistant in Botany, Stanford University, 1900–1902, Instructor, 1902-4; Fellow in Botany, Columbia University, 1904–5; Assistant Curator, Division of Plants, United States National Museum, 1905–6; Lecturer in Botany, University of California, First Semester, 1915–16. At Stanford 1900–1904, and since 1906.

†ADAMS, EPHRAIM DOUGLASS (123) 746 Santa Ynez-*123* (PA 4626)
Professor of History

A.B., Michigan, 1887, Ph.D., 1890; LL.D., Grinnell, 1917; Litt.D., Tufts, 1918. Principal of High School, McGregor (Ia.), 1887; Principal of High School, Saginaw (Mich.), 1889; Special Agent in Charge of Street Railways, Eleventh Census, Washington (D.C.), 1890; Assistant Professor and afterward Professor of European History, University of Kansas, 1891–1902. At Stanford since 1902.

†ADDIS, THOMAS (1234) 201 San Carlos, Sausalito-s (Sausalito 350)
Professor of Medicine

M.B., Ch.B., Edinburgh, 1905, M.D., and M.R.C.P., 1908. Clinical Assistant, Medical Out-Patient Department, Royal Infirmary of Edinburgh, 1908, 1911; Medical Registrar, Leith Hospital, 1911; Carnegie Research Scholar and Fellow, 1908–11; Director of the Clinical Laboratory, Lane Hospital, since 1911; Captain, M.C., U.S.A., June 1918, to July 1919. At Stanford since 1911.

ADELSBACH, CLEO GARLAND (123) 233 Stanford Union-*137* (PA 3121)
Acting Instructor in Mathematics

A.B., Stanford, 1928.

†ALDERSON, HARRY EVERETT (1234) 2649 Green, SF-sf (Fillmore 4548)
Clinical Professor of Medicine (Dermatology)

M.D., California, 1900. Graduate Study, Vanderbilt Clinic, New York, 1906, Johns Hopkins, 1907, Berlin, Paris, and London, 1912; Assistant in Skin Diseases, Medical Department, University of California, 1906–12; Professor of Art Anatomy, California School of Design, 1906–12; Chief of Dermatological Clinic, San Francisco Fruit and Flower Mission. At Stanford since 1912.

†ALLEN, CLIFFORD GILMORE (123) 637 Alvarado (PA 3347)
Professor of Romanic Languages

A.B., Boston, 1900; A.M., Stanford, 1903; Docteur de l'Université de Paris, 1916. Student, University of Paris, 1903–4; Fellow of Boston University and Student of Universities of Paris and Madrid, 1904–5. At Stanford since 1901.

†ALLEN, WARREN D. (1234) 675 Alvarado (PA 4924)
Organist, and Lecturer in Music

Associate, American Guild of Organists; Dean of Conservatory of Music, College of the Pacific, 1913–19. At Stanford since 1918.

†ALMACK, JOHN CONRAD (1234) 683 Alvarado (PA 3510)
Professor of Education

A.B., Oregon, 1918, A.M., 1920; Ph.D., Stanford, 1923. Principal and Superintendent of Schools, Rockford (Wash.), 1905–15; Editor, Colfax (Wash.), 1915–16; Superintendent of Schools, Coquille (Ore.), 1916–17; Assistant in Education, University of Oregon, 1917–18. Professor of Education and Director of Extension Education, 1918–21; Teaching Fellow, Stanford University, 1921–22. At Stanford since 1922.

ALMOND, NINA (123) 532 Lasuen-*1077* (PA 6624)
Librarian, Hoover War Library

A.B., Indiana University, 1913. Certificate, Indiana Library School; Head Cataloguer, Indiana University Library, 1914–16. At Stanford since 1916.

†ALSBERG, CARL LUCAS (234) 678 Mirada* (PA 3855)
Director, Food Research Institute, and Dean of Graduate Study

A.B., Columbia, 1896, A.M., 1900, M.D. (College of Physicians and Surgeons), 1900. Student, Universities of Strassburg and Berlin, 1900–1903; Assistant in Physiological Chemistry, Harvard University, 1902–5. Instructor in Biological Chemistry, 1905–8; Chemical Biologist, Bureau of Plant Industry, United States Department of Agriculture, 1908–12; Chief, Bureau of Chemistry, 1912–21. At Stanford since 1921.

†Anderson, Frederick (123) Cedro Cottage-*2525* (PA 3526)
Associate Professor of Romanic Languages

A.B., Stanford, 1911; A.M., Harvard, 1912; Ph.D., Yale, 1915. Instructor in French and Spanish, Reed College, 1912–13, Sheffield Scientific School, 1913–14, Yale University, 1914–18; Fellow in Yale University, 1914–15. At Stanford since 1920.

†Anderson, Henry Stow (1234) 460 Yale, M-Box 83, m (PA 6961)
Assistant Professor of Economics, and Assistant Director of Citizenship

A.B., Stanford, 1922, A.M., 1923, Ph.D., 1925. Lecturer in Problems of Citizenship, San Francisco State Teachers College, 1924. At Stanford since 1923.

†Anderson, Hobson Dewey (4) U.S. Office of Education, Nome, Alaska
Assistant in Educational Research

A.B., Stanford, 1929, A.M., 1930. At Stanford since 1930.

†Applegate, Elmer Ivan (23) 329 Lytton, P*
Acting Curator, Dudley Herbarium

†Argo, Arnold Clarence (4) 20 Hudson, Redwood City-rc (RC 91)
Acting Assistant Professor of Education

B.S., University of Washington, 1912; A.M., Stanford, 1921. Instructor in high schools, Oregon and Washington, 1912–15; Principal, Clarkston (Wash.) High School, 1915–16; Principal, Grade School, Spokane (Wash.), 1916-18; Superintendent of Schools, Pasco (Wash.), 1918–19; Principal, High School, Redwood City, since 1921; Instructor, University of Oregon, Summer Session, 1928; Acting Assistant Professor of Education, Stanford, Summer Quarter, 1929.

†Ashley, Rea Ernest (123) 16 Fifth Ave., SF-sf (Bayview 5905)
Clinical Instructor in Surgery (Otology, Rhinology, Laryngology)

B.S., University of Illinois, 1917, M.D., 1919. Assistant, Department of Bacteriology and Pathology, University of Illinois, 1917-19; Assistant Resident Physician, Stanford University Hospital, 1919–20, Resident, Ear, Nose, and Throat, 1920–22; Postgraduate Study, Vienna, 1928. At Stanford since 1921.

Avery, Curtis Edmund (123) 524 Homer, P-*881* (PA 6273)
Instructor in English

A.B., Pomona, 1925; A.M., Yale, 1928. Student, Columbia University, School of Journalism, 1925–26. At Stanford since 1928.

†Bacher, John Adolph (1234) 157 Twenty-fifth Ave., SF-sf (Evergreen 4684)
Associate Clinical Professor of Surgery (Otology, Rhinology, Laryngology)

A.B., Stanford, 1899; M.D., Harvard, 1911. At Stanford since 1917.

†Bachrodt, Walter Lewis (4) 590 S. Fifteenth, San Jose-sj (Ballard3157R)
Acting Associate Professor of Education

A.B., Stanford, 1920, A.M., 1921. Superintendent of City Schools, San Jose, since 1921; Instructor, San Jose State Teachers College, Summer Sessions, 1922, 1924-26, 1928, 1929; Acting Instructor in Education, Stanford, Summer Quarter, 1924, Acting Assistant Professor, Summer Quarters, 1928, 1929.

Bailey, Margery (1234) 513 Salvatierra* (PA 8953)
Assistant Professor of English

A.B., Stanford, 1914, A.M., 1916; Ph.D., Yale, 1922. Fellow in English, Yale University, 1921–22. At Stanford since 1914.

BANE, SUDA LORENA (1234) 332 Forest, P*
Assistant Curator, American Relief Administration Archive, Hoover War Library

Assistant, Public Library, Washington, D.C., 1908–17; Assistant Librarian, U.S. Food Administration, 1917–19; Librarian, American Relief Administration, 1919–28. At Stanford since 1924.

BARCLAY, THOMAS SHEPARD (123) Stanford Union-*3004* (PA 3121)
Associate Professor of Political Science

A.B., Missouri, 1915, A.M., 1916; Ph.D., Columbia, 1924. Gregory Scholar, University of Missouri, 1915–16; Fellow, University of Chicago, 1916–17; United States Department of State, American Peace Commission, 1919–20; University Scholar in Public Law, Columbia University, 1920–22; Assistant Professor of Political Science, University of Missouri, 1922–26, Associate Professor, 1926–27; Acting Professor, North Carolina, Summer Session, 1921. At Stanford since 1927.

†BARKAN, HANS (4) 3653 Jackson, SF-sf (Skyline 1456)
Clinical Professor of Surgery (Ophthalmology)

A.B., Stanford, 1905; M.D., Harvard Medical School, 1910. Assistant in Pathology, Harvard Medical School, 1910–11, Instructor, 1911–12; Pathologist to the Long Island Hospital and Boston City Almshouse, 1911–12; Voluntary Assistant, Second Eye Clinic, Vienna, 1912–14; Lieutenant, U.S.N.R.F., July to December, 1917; Captain, M.R.C., U.S.A., November 1918, to June 1919. At Stanford since 1914.

†BARKAN, OTTO (12) 3435 Pacific, SF-sf (Fillmore 3350)
Assistant Clinical Professor of Surgery (Ophthalmology)

B.A., Trinity College, Oxford, 1909; M.D., Munich, 1914; M.R.C.S., London, 1915. House Physician, St. Mary's Hospital, London, 1914–15; Eye Clinics, Vienna and Munich, 1915–19; Eye Clinic, Vienna, 1920; Consulting Ophthalmologist, San Francisco Hospital, Stanford Service, since 1926. At Stanford since 1921.

†BARNETT, GEORGE DE FOREST (123) 669 Mirada (PA 4824)
Professor of Medicine

A.B., Stanford, 1906, A.M., 1909, M.D., 1913. Instructor in Chemistry, Stanford University, 1909–10; Student, Johns Hopkins Medical School, 1910–12; Senior House Officer, Lane Hospital, 1914–15; Lieutenant, M.C., U.S.N.R.F., 1917–19. At Stanford since 1915.

†BASSETT, LEE EMERSON (123) 740 Santa Ynez-*1858* (PA 4438)
Professor of English (Public Speaking)

A.B., Stanford, 1901. Graduate, Cumnock School of Oratory, Los Angeles, 1898; Instructor in Public Speaking, University of Southern California, 1898–99; Student, School of Expression, Boston, 1901; Student, Oxford University, England, 1907–8; Acting Associate Professor of Public Speaking, University of Washington, 1912–13; Professor of Public Speaking, University of Colorado, Summer Sessions, 1919, 1923, University of California, Intersession, 1922, Northwestern University, Summer Session, 1925, Utah Agricultural College, Summer Session, 1929. At Stanford since 1900.

†BAUMBERGER, JAMES PERCY (123) 328 Churchill, P-p (PA 8140)
Associate Professor of Physiology

B.S., California, 1914; M.S., Harvard, 1916, D.Sc., 1918. Student, Yale Army Laboratory School, 1918; Assistant in Zoölogy, Harvard University, 1914–18, Assistant in Botany, 1918, Austin Teaching Fellow in Zoölogy, 1917–18, Teaching Fellow in Physiology, 1922; Assistant in Physiology, Radcliffe College, 1917, Assistant in Entomology, 1918; Instructor in Natural Sciences, Lowthorpe Horticulture School, 1915–18; Traumatic Shock Laboratory, A.E.F., 1918–19; C.R.B. and American Scandinavian Fellow for Research in Bruxelles, Naples, Lund, and Copenhagen, June 1925–December 1926. At Stanford since 1919.

†BEACH, WALTER GREENWOOD (124) 521 Salvatierra-*128* (PA 5649)
Professor of Social Science

A.B., Marietta, 1888; A.B., Harvard, 1891, A.M., 1892. Professor of Philosophy and History, Marietta College for Women, 1893–97; Student, Stanford University,

1897–98; Assistant Professor and afterward Professor and Head of Department of Economic Science and History, State College of Washington, 1898–1910; Professor of Social Science, University of Washington, 1910–17; Dean of College of Sciences and Arts, and Professor of Social Science, State College of Washington, 1917–20; Lecturer in Economics, University of California, Summer Session, 1924. At Stanford since 1920.

†Beard, Paul Jay (123) 530 Webster, P-p (PA 5894)
Instructor in Civil Engineering

B.S., Iowa State College of Agriculture and Mechanical Arts, 1925, M.S., 1927; Ph.D., Stanford, 1929.

†Becking, Laurence B. (1234) Twelfth and Dolores, Carmel-c (Carmel 129)
Herzstein Professor of Biology

A.B., Utrecht, 1917, M.S., 1919, D.Sc., 1921; Ph.D., Stanford, 1921. At Stanford since 1920.

†Bell, Reginald (1234) Woodland and University, Ravenswood-*2013* [(PA 21668)
Assistant in Educational Research

A.B., Oberlin, 1916; A.M., Stanford, 1928. Cubberley Fellow in School Administration, Stanford, 1928–29, Instructor in Citizenship, 1928–30. At Stanford since 1928.

†Benjamin, Harold Raymond Wayne (1234) 661 Columbia, M-m (PA 21895)
Associate Professor of Education and Director of Practice Teaching

A.B., University of Oregon, 1920, A.M., 1924; Ph.D., Stanford, 1927. Principal, Elementary Schools, Salem (Ore.), 1915–17; Superintendent of Schools, Umatilla (Ore.), 1920–22; Principal of University High School and Assistant Professor of Education, University of Oregon, 1922–25; Acting Assistant Professor of Education, Michigan State Normal College, Ypsilanti (Mich.), Summer Session, 1924; Assistant in Practice Teaching, Stanford, 1925–27. At Stanford since 1925.

Bennett, Cassie E. (Mrs.) (1234) 158 Kingsley, P* (PA 7940)
Secretary, Economics

At Stanford since 1924.

Bennett, Garry Eaton (123) 650 Lasuen-*3039* (PA 5923)
Assistant Director of Golf

At Stanford since 1929.

†Bennett, Merrill Kelley (1234) 1103 Ramona, P-p (PA 3659)
Research Associate, Food Research Institute

Ph.B., Brown, 1920, A.M., 1921; A.M., Harvard, 1926; Ph.D., Stanford, 1927. Assistant in English, Brown, 1920–21, Instructor, 1921–22; Instructor in English, Stanford, 1922–23, Junior Research Associate, Food Research Institute, 1923–25; Weld Fellow in Economics, Harvard, 1925–26. At Stanford, 1922–25, and since 1926.

Bergstrom, Francis William (123) 585 Salvatierra* (PA 7795)
Assistant Professor of Chemistry

A.B., Stanford, 1918, Engineer, 1919, Ph.D., 1922. National Research Fellow in Chemistry, Clark and Brown Universities, 1922–25. At Stanford since 1925.

Bering, Barry Farmer (4) 251 Toyon-*2383* (PA 3121)
Acting Instructor of Mathematics

A.B., Stanford, 1926, A.M., 1929. Assistant in Mathematics, Stanford, 1928–29; Instructor in Mathematics, San Jose State Teachers College, since 1929.

†Bingham, Joseph Walter (1234) 653 Melville, P* (PA 21766)
Professor of Law

A.B., Chicago, 1902, J.D., 1904. In practice of law, Chicago, 1904–5; Acting Assistant Professor of Law, Cornell University, 1905–7; Acting Professor of Law, Uni-

versity of Chicago, Summer Quarter, 1916; Acting Professor of Law, University of Michigan, Summer Session, 1923; Acting Professor of Law, University of California, Summer Session, 1925; Visiting Professor of Law, Columbia, 1926–27; Acting Professor of Law, University of Wisconsin, Summer Session, 1927. At Stanford since 1907.

†BINKLEY, ROBERT CEDRIC (4) 550 Palo Alto, P-p (PA 7830)
Acting Associate Professor of History

A.B., Stanford, 1922, A.M., 1924, Ph.D., 1927. Instructor in History, College of the City of New York, 1927–29; Associate Professor of History, Smith College, since 1929.

†BLACKWELDER, ELIOT (12) Escondite Cottage-*N* (PA 8034)
Professor of Geology

A.B., Chicago, 1901, Ph.D., 1914. Fellow and Assistant in Geology, University of Chicago, 1902–3; Paleontologist, Carnegie Institution Expedition to China, 1903–4; Instructor and afterward Professor of Geology, University of Wisconsin, 1905–16; Professor and Head of Department of Geology, University of Illinois, 1916–19; Lecturer in Geology, University of Chicago, 1907, 1916, Stanford University, 1919, Harvard University, 1921; Geologist, U.S. Geological Survey, 1902, 1906–18; Chief Geologist, Argus Oil Company, 1919–21; Manager, Teton Syndicate, 1921–22. At Stanford since 1922.

BLICHFELDT, HANS FREDERIK (123) Casa Real Apts., P-*875* (PA 21506)
Professor of Mathematics

A.B., Stanford, 1896; Ph.D., Leipzig, 1898. Associate Professor of Mathematics, University of Chicago, Summer Quarter, 1911; Professor of Mathematics, Columbia University, Summer Sessions, 1924, 1925. At Stanford since 1897.

†BLODGETT, DAVID P. (1234) 130 Cowper, P-p (PA 7540)
Office Manager, Treasurer's Office

At Stanford since 1907.

†BLOOMFIELD, ARTHUR LEONARD (123) 245 Locust, SF-sf (Fillmore 9544)
Professor of Medicine

A.B., Johns Hopkins, 1907, M.D., 1911. Assistant, Instructor, Associate in Medicine, Johns Hopkins, 1912–22, Associate Professor of Medicine, 1922–26. At Stanford since 1926.

†BOARDMAN, WALTER WHITNEY (123) 37 Walnut, SF-sf (Fillmore 2506)
Associate Clinical Professor of Medicine

M.D., Cooper Medical College, 1909. Assistant in Phipps Dispensary, Johns Hopkins Hospital, 1910. Assistant in Actinography and Externe in Gynecology, 1911; Lieutenant, U.S.N.R.F., July 1917 to December 1918. At Stanford since 1912.

†BOHR, HAROLD AUGUST (4) 1527 Waverley, P-p (PA 21295)
Acting Professor of Mathematics

Magister, Copenhagen, 1909, Ph.D., 1910. Lecturer, University of Copenhagen, 1910–15; Professor of Mathematics, Technical School, Copenhagen, 1915–30; Professor of Mathematics, University of Copenhagen, since 1930.

BOLES, VIRGINIA STUART (MRS.) (1234) 260 Fulton, Redwood City* [(RC 754J)
Secretary, Mathematics

A.B., Stanford, 1911. At Stanford since 1927.

†BONN, MORITZ JULIUS (4) 638 Salvatierra
Acting Professor of Economics

Ph.D., Munich, 1905. Associate Professor of Economics, Professor, President, Handels-Hochschule, Munich, 1910–20; Visiting Professor, University of California, 1914–15, University of Wisconsin, 1915, Cornell University, 1915–16; Professor of Economics, Handels-Hochschule, Berlin, since 1920; Member, Institute of Politics, Williamstown (Mass.), 1924, 1926.

BOULWARE, EDNA (1234) 170 Bryant, P* (PA 5389)
Secretary, Chemistry
At Stanford since 1916.

†BRADSHAW, JAMES (1234) 2351 Tasso, P* (PA 5750)
Assistant Director, School of Hygiene and Physical Education
A.B., University of Nevada, 1922. At Stanford since 1928.

BRAND, CARL FREMONT (123) 220 Stanford Union-*1696* (PA 3121)
Assistant Professor of History
A.B., Indiana, 1915, A.M., 1916; A.M., Harvard, 1918, Ph.D., 1923. Teacher of History, Hammond (Ind.) High School, 1916–17; University Scholar, Harvard University, 1917–18. Austin Teaching Fellow, 1918–19; Instructor in History, Smith College, 1919–20; Parker Traveling Fellow, Harvard University, 1920–21; Instructor in History, University of Michigan, 1921–24; on Faculty, Washington State College, Summer Session, 1925, University of Washington, 1927. At Stanford since 1924.

†BRANDSTEN, ERNST M. (123) Searsville Lake Park-*1085* (Woodside 443)
Advisory Director of Water Sports
Teacher of Swimming, Municipal Baths, Stockholm, Sweden, 1905; Swimming Coach, Neptune Swimming Club, Stockholm, 1906, University of California, 1911, 1913–15. At Stanford since 1915.

BRASHEAR, EDITH A. (MRS.) (1234) 256 University, Los Gatos-lg (LG 39R)
Secretary, Registrar's Office
At Stanford since 1926.

[†BRENNER, JAMES EMMET 1044 Hamilton, P-p (PA 3634)
Law Librarian, and Associate Professor of Law]
Graduate, United States Naval Academy, 1913; J.D., Stanford, 1927. At Stanford since 1927.

†BRIGGS, MITCHELL PIRIE (23) 555 Harvard, M-*2697* (PA 5307)
Acting Instructor in History
A.B., Morningside College (Iowa), 1914; A.M., Wisconsin, 1917; Ph.D., Stanford, 1930. Fellow in American History, Wisconsin, 1916–17; Instructor in History and Political Science, Fresno Junior College, 1917–21; Director of Social Sciences, Fresno High School, 1921–28; Instructor in History and Political Science, Fresno State College, 1928–29.

†BRIGGS, WILLIAM DINSMORE (4) 526 Mayfield-*53* (PA 21170)
Professor of English
A.B., Stanford, 1896; A.M., Harvard, 1899, Ph.D., 1900. Student, Johns Hopkins University, 1896–97; Instructor in English and German, University of Vermont, 1900–1901; Instructor in English, Western Reserve University, 1901–6. At Stanford since 1906.

†BROOKS, LEROY (23) 140 San Benito, SF-sf (Montrose 8628)
Clinical Instructor in Surgery
B.S., M.D., Marquette University, 1919. Milwaukee Hospital, 1919–20. At Stanford since 1929.

BROWN, ADELAIDE (123) 45 Sixteenth Ave., SF-sf (Evergreen 6917)
Lecturer in Pediatrics (Child Hygiene)
A.B., Smith, 1888; M.D., Cooper Medical College, 1892. Interne, New England Hospital, Boston (Mass.), 1893; Student, Berlin, Leipzig, Dresden, Vienna, 1894; Student, Johns Hopkins, 1898; Children's Hospital, 1899–1915; Member, State Board of Health, since 1915. At Stanford since 1920.

†BROWN, BUFORD OTIS (234) 613 Salvatierra-*678* (PA 6835)
Associate Professor of Journalism
A.B., Missouri, 1908, B.J., 1912. Bursar, Texas Woman's College, 1909–11; Instructor in Journalism, University of Texas, 1914–17; Secretary, Ground School of

Military Aëronautics, University of Texas, 1917; Visiting Lecturer, Texas Agricultural and Mechanical College, Summer Sessions, 1922, 1923; Editor *Plainview* (Tex.) *Evening Herald*, 1912–14, *Vernon Record*, 1918–22; Special Correspondent *Wichita Falls Times* and *Dallas News*, 1922; Associate Professor, University of California, Summer Session in Los Angeles, 1924–27; Visiting Professor, University of Oklahoma, Autumn, 1929. At Stanford since 1923.

†Brown, Harold Chapman (123) 546 Washington, P* (PA 3994)
Professor of Philosophy

A.B., Williams, 1901; A.M., Harvard, 1903, Ph.D., 1905. Student, University of Berlin, 1903–4; Assistant in Philosophy, Harvard University, 1904–6; Instructor in Philosophy, Columbia University, 1906–14, Columbia University, Summer Sessions, 1915, 1917, 1929; Acting Professor, University of California, Second Semester, 1922, Intersessions, 1920, 1922, 1924, 1926; Acting Professor, University of Washington, Summer Quarter, 1925, University of Chicago, Summer Quarter, 1927; Visiting Professor, University of Texas, Second Semester, 1928–29. At Stanford since 1914.

Brown, Joseph Grant (123) 1013 Ramona, P* (PA 21584)
Associate Professor of Physics

A.B., Stanford, 1901, A.M., 1903. Graduate, Illinois State Normal University, 1894, Instructor in Physics and Chemistry, 1894–98. At Stanford since 1900.

†Brown, Walter Henry (1234) 444 Tennyson, P-p (PA 5473)
Professor of Hygiene and Physical Education, and Director of Division of Informational Hygiene of University Health Service

M.D., Jefferson Medical College, 1906. C.P.H., Harvard Technology School for Health Officers, 1914; Instructor, Department of Hygiene, Yale University, 1916–19; Lecturer in Public Health, School of Social Work, University of Oregon, 1925–27. At Stanford since 1928.

Buckingham, Elisabeth Lee (134) 534 Lasuen-*102* (PA 6624)
Associate Professor of English (Public Speaking)

A.B., Stanford, 1910, A.M., 1914. Student, Columbia College of Expression, Summer, 1913; Teacher of Public Speaking, State Normal School, San Jose, 1914; Student, Columbia University, 1917–18, and Summer Sessions, 1916, 1919. At Stanford since 1911.

Bugge, Elwyn Baidon (1234) 610 University, P* (PA 8692)
Instructor in Physical Education and Hygiene

A.B., Stanford, 1926. At Stanford since 1928.

Bunting, Helen Masters (123) 736 Coronado-*825* (PA 4551)
Associate Professor of Physical Education for Women

A.B., Stanford, 1924; A.M., Columbia, 1927. Graduate, Department of Hygiene and Physical Education, Wellesley College, 1912; Instructor in Physical Education, Centenary Collegiate Institute, Hackettstown (N.J.), 1912–14; Director, Physical Education for Women, University of Colorado, 1914–19. At Stanford since 1919.

Burk, Georgina Meyer (123) 736 Coronado-*825* (PA 4551)
Instructor in Physical Education

A.B., Stanford, 1929. At Stanford, 1920–26, and since 1927.

†Burlingame, Leonas Lancelot (123) 614 Alvarado* (PA 5727)
Professor of Biology

Ph.B., Ohio Northern University, 1901; A.B., Chicago, 1906, Ph.D., 1908. Instructor in Biology, Ohio Northern University, 1901–4; Fellow in Botany, University of Chicago, 1906, Assistant, 1906–8; Acting Professor of Biology, University of Oregon, Summer Sessions, 1924, 1925. At Stanford since 1908.

†Burlingame, Raleigh W. (123) San Francisco Hospital, SF-sf
Clinical Instructor in Pediatrics [(Mission 0820)

M.D., University of Missouri, 1912. Interne, House of Correction Hospital, Chicago, 1915–16; House Officer, San Francisco Hospital, 1916–17; Resident Physician

in Charge, San Francisco Isolation Hospitals, since 1917; Diagnostician in Communicable Diseases to San Francisco Board of Health since 1918; Director of San Francisco Social Hygiene Clinic, since 1919; Instructor to Nurses in Communicable Diseases, San Francisco Hospital, since 1918, Stanford Hospital, 1919–27. At Stanford since 1927.

†Burrows, John Robert (123) 2406 Clay, SF-sf (Fillmore 2833)
Assistant Clinical Professor of Surgery (Anesthesia)

M.D., Cooper Medical College, 1906. Assistant in Ophthalmology, Cooper Medical College, 1909; Assistant Anesthetist, Lane Hospital, since 1910. At Stanford 1912–19, and since 1921.

Busche, Margaret Jeanette (123) 1990 California, SF-sf (Ordway 4050)
Instructor in Theory of Nursing

B.S., Cincinnati, 1922. Graduate, School of Nursing and Health, University of Cincinnati, 1921, Assistant Instructor, 1921–23; Instructor, Cincinnati and Hamilton County Chapter, American Red Cross, 1923–24; Instructor, School of Nursing, The Tennessee Coal, Iron, and R.R. Co., Fairfield (Ala.), 1924–25. At Stanford since 1926.

†Butler, Edmund (123) 2539 Vallejo, SF-sf (Fillmore 1985)
Assistant Clinical Professor of Surgery

M.D., Cooper Medical College, 1911; Senior Interne, Resident in Surgery, Lane Hospital, 1912–14; Surgeon, S.F. Emergency Hospital, 1914–19; Lieutenant, U.S.N. R.F., December 1917 to March 1919; Chief Surgeon, San Francisco Emergency Service, 1919. At Stanford since 1920.

†Butt, Edward Merchant (123) 2250 Bay, SF-sf (Fillmore 9389)
Instructor in Pathology

A.B., Stanford, 1924, M.D., 1929. Assistant in Pharmacology, 1926–28. At Stanford since 1926.

†Button, Roy H. (1234) 812 Forest, P* (PA 5540)
Superintendent of Buildings and Grounds

At Stanford since 1924.

†Calkins, Robert Deblois, Jr. (234) 626 Homer, P-p
Instructor in Citizenship, and Junior Research Associate (Food Research Institute)

B.S., William and Mary, 1925; A.M., Stanford, 1929. At Stanford since 1930.

†Campbell, John Lockhart (123) 716 Carmel, Berkeley-b
Clinic Dentist [(Berkeley 2533J)

D.D.S., California, 1917. Clinic Dentist, San Francisco Polyclinic, 1917–18, Baby Hospital of Alameda County, 1917–19; Detention Home of Juvenile Court of City and County of San Francisco, since 1918; Assistant in Clinical Dentistry, University of California, 1918–19; Lieutenant, D.C., U.S.A. At Stanford since 1919.

†Canning, John Bennet (123) Sandhill Road-*76* (PA 21586)
Associate Professor of Economics

Ph.B., Chicago, 1913, Ph.D., 1929. Graduate Scholar in Political Economy, University of Chicago, 1913–14, Assistant, 1914–15, Instructor, 1915–17; Assistant Professor of Economics, University of California, Intersession, 1920, 1921; Assistant Professor of Political Economy, University of Chicago, Summer Quarter, 1924. At Stanford since 1919.

†Cannon, William Austin (123) 510 Lowell, P-*925* (PA 4796)
Lecturer in Botany

A.B., Stanford, 1899, A.M., 1900; Ph.D., Columbia, 1902. Staff Member, Department of Botanical Research, Carnegie Institution of Washington, 1904–24, Research Associate, 1925.

†Carroll, Joseph Snyder (123) 601 Channing, P-p (PA 4772)
Assistant Professor of Electrical Engineering

B.S., Utah, 1920; Engineer, Stanford, 1924, Ph.D., 1929. At Stanford since 1924.

†Carson, Donald Alfonso (123) 2342 Sutter, SF-sf (Walnut 6911)
Clinical Instructor in Medicine

A.B., Yale, 1919; M.D., Columbia, 1925. Interne, Johns Hopkins Hospital, Baltimore, 1925–26; Assistant Resident Physician, Presbyterian Hospital, New York, and Assistant Instructor in Medicine, College of Physicians and Surgeons, 1926–27. At Stanford since 1927.

†Case, Clarence Marsh (4) 132 Lincoln, P-p
Acting Professor of Sociology

A.B., Earlham, 1905; A.M., Brown, 1908; Ph.D., Wisconsin, 1915. Professor of History and Social Sciences, Penn College (Iowa), 1910–17; Associate Professor of Sociology, State University of Iowa, 1917–22; Professor of Sociology, University of Southern California, since 1922.

†Case, Roscoe David (4) 531 Hawthorne, P-*993*
Acting Assistant Professor of Education

A.B., University of Denver, 1922, A.M., 1923. Superintendent of Schools, Goodell (Iowa), 1913–14, Kanawha (Iowa), 1914–19, Gowrie (Iowa), 1919–21, Cripple Creek (Colo.), 1922–24, Brush (Colo.), since 1924; Instructor in English, University of Denver, 1921–22; Extension Instructor, University of Colorado and Colorado State Teachers College, 1926–29; Acting Assistant Professor of Education, Stanford, Summer Quarter, 1929.

†Cathcart, Arthur Martin (123) 1215 Emerson, P* (PA 8519)
Professor of Law

A.B., Stanford, 1896. Student, Harvard University, 1896–97; Attorney at Law, Colorado Springs (Colo.), 1903–4; Lecturer in Law, University of California, Summer Sessions, 1908, 1924; Professor of Law, University of Chicago, Summer Quarters, 1911, 1922; Lecturer in Law, University of California, 1927–28. At Stanford since 1904.

†Catton, Joseph (123) 2172 Pacific, SF-sf (Fillmore 0094)
Assistant Clinical Professor of Medicine (Neurology)

B.S., California, 1911, M.D., 1913. Voluntary Assistant in Medicine, University of California, 1914–16, Assistant in Medicine, 1916; Chief of Medical Clinic, San Francisco Polyclinic, 1917–19; Assistant Visiting Physician, San Francisco Hospital, 1914–17, Visiting Physician, 1917; Major, M.C., U.S.A.; Consultant, Neuropsychiatry, U.S. Veterans' Bureau and U.S. Employees' Compensation Commission. At Stanford since 1919.

†Chamberlain, William Edward (1234) 11 San Leandro Way, SF-sf
Professor of Medicine (Radiology), and [(Lockhaven 4283)
Director of Department of Radiology

B.S., California, 1913, M.D., 1916. Assistant in Roentgenology, University of California Medical School, 1916–17; Visiting Roentgenologist to the French Hospital, San Francisco, 1917; Roentgenologist of U.S. Navy Base Hospital No. 2, 1917–18; Instructor in Roentgenology, University of California Medical School, 1919–20; Roentgenologist in Charge, Children's, Hahnemann, and St. Mary's Hospitals, San Francisco, 1919–20. At Stanford since 1920.

†Chandler, Loren Roscoe (123) 2474 Francisco, SF-sf (Fillmore 10258)
Clinical Instructor in Surgery

A.B., Stanford, 1920, M.D., 1923. Senior Interne in Surgery, Lane Hospital, 1923–24; Diplomate, National Board of Medical Examiners, 1923; Resident Surgeon, Lane Hospital, 1924–25. At Stanford since 1923.

†Cheney, Garnett (123) 140 Chaves, SF-sf (Lockhaven 3176)
Clinical Instructor in Medicine

A.B., California, 1920; M.D., Harvard, 1923. Graduate Student in Pathology, Vienna (six months); Graduate Student in Medicine, London (fifteen months);

Senior Interne in Medicine, Lane Hospital, 1925-26; Resident in Medicine, Lane Hospital, 1926–27; Assistant Visiting Physician to the San Francisco Relief Home, since 1928; Consultant Gastroenterologist to the Veterans' Hospital, Palo Alto, since 1928; Assistant Visiting Physician to the San Francisco (City and County) Hospital. At Stanford since 1925.

†Cheney, William Fitch (123) — 33 Spruce, SF-sf (Bayview 7720)
Clinical Professor of Medicine

B.L., California, 1885; M.D., Cooper Medical College, 1889. Professor of Principles and Practice of Medicine, Cooper Medical College, 1898–1912. At Stanford since 1909.

†von Christierson, Sigurd (123) — 70 San Andreas Way, SF-sf [(Montrose 8970)
Clinical Instructor in Surgery (Otology, Rhinology, Laryngology)

A.B., Stanford, 1917, M.D., 1922. Resident, Ear, Nose, and Throat, Stanford Hospital, 1922–23; Visiting Aurist, Shriners' Hospital; Aurist, Southern Pacific Hospital. At Stanford since 1922.

Church, Vivienne (1234) — Orange, Los Altos* (LA 31W)
Secretary to Dean of Men

At Stanford since 1923.

†Clark, Arthur Bridgman (124) — 767 Santa Ynez* (PA 4210)
Professor of Education (Graphic Art)

B.Ar., Syracuse, 1888, M.Ar., 1891. Director of Trade Schools and Instructor in Drawing, New York State Reformatory, Elmira (N.Y.), 1888–89; Instructor in Architecture, Syracuse University, 1889–92; Student in Painting, New York School of Art and Académie Carmen, Paris, 1898–99; Instructor in Pottery, California School of Arts and Crafts, Berkeley, Summer Sessions, 1913, 1914; Director, San Francisco Art Association, 1917; Lecturer, California School of Fine Arts, 1919–20. At Stanford since 1892.

Clark, Esther Bridgman (3) — 767 Santa Ynez (PA 4210)
Clinical Instructor in Medicine

A.B., Stanford, 1921, M.D., 1925. Senior Interne in Pediatrics, Lane Hospital, 1925–26, Resident, 1926–27. At Stanford since 1930.

†Clark, Harry (1234) — 1934 Waverley, P-p (PA 8482)
Research Associate in Biophysics

B.S., New York University, 1907, M.S., 1908; A.M., Harvard, 1911, Ph.D., 1914. Assistant in Physics, New York University, 1905–7, in Mathematics, 1906–7; Assistant in Physics, Stevens Institute, 1908–9; Assistant and Fellow, Harvard, 1910–14, Instructor, 1914–17; Instructor, Radcliffe, 1914, 1916; Professor, Victoria University College (New Zealand), 1917–19; Associate Professor, Oberlin, 1919–20; Associate Member, Rockefeller Institute for Medical Research, 1920–29; Acting Professor, Stanford, Summer Quarter, 1928. At Stanford since 1929.

†Clark, William Redwood Price (123) — 2710 Filbert, SF-sf [(Walnut 5106)
Clinical Professor of Medicine (Tuberculosis)

M.D., Cooper Medical College, 1899. Assistant Visiting Physician, City and County Hospital, San Francisco, 1901–4; Instructor in Medicine, Cooper Medical College, 1905–11; Visiting Physician, Clinic of the San Francisco Association for the Study and Prevention of Tuberculosis, 1909–12; Visiting Physician, City and County Tuberculosis Hospital, San Francisco, 1911–26; Major, M.C., U.S.A., November, 1917 to January 1919; Consultant in Chest Diseases, Diagnostic Center, U.S. Veterans' Hospital, Palo Alto, since January 1928. At Stanford since 1911.

Clifton, Charles Egolf (1234) — 510 Washington, P* (PA 21392)
Instructor in Bacteriology

A.B., Ohio State, 1925, M.Sc., 1926; Ph.D., Minnesota, 1928. Assistant in Physical Chemistry, Ohio State, 1925–27; Fellow in Biophysics, Mayo Foundation, 1927–28; Research Chemist, Eastman Kodak Co., 1929. At Stanford since 1929.

†Coester, Alfred (134) 435 Homer, P-*1725* (PA 4287)
Professor of Spanish-American Literature

A.B., Harvard, 1896, A.M., 1906, Ph.D., 1906. Student, University of Seville, Spain, 1901–2, University of Berlin, 1894–95, Sorbonne, 1895; Secretary-Treasurer, American Association of Teachers of Spanish, 1917–26; Editor, *Hispania;* Caballero de la real orden de Isabel la Católica; Member, Hispanic Society of America; Corresponding member, Real Academia Hispano-Americana de Ciencias y Artes, Cadiz; Corresponding member, Junta de Historia y Numismática Americana, Buenos Aires. At Stanford, Summer Quarter, 1919, and since 1920.

†Condon, Edward Uhler (4) 443 Kipling, P*
Acting Professor of Physics

A.B., California, 1924, Ph.D., 1926. National Research Fellow, Göttingen and Munich, 1926–27; Lecturer in Physics, Columbia University, Spring, 1928; Assistant Professor of Physics, Princeton University, 1928–29; Professor of Theoretical Physics, University of Minnesota, since 1929.

Cooper, Alice Cecilia (4) 624 Lasuen (PA 7787)
Acting Assistant Professor of Education, and Lecturer in English

A.B., Stanford, 1907, A.M., 1908. Instructor in English, Polytechnic High School, Los Angeles, 1908–20; Instructor in English, University High School, Oakland, 1920–21, Assistant Supervisor of English, 1921–23, Supervisor of Senior English, 1923–28; Instructor in Methods in Teaching English, University of California, 1923–28; Instructor in English, Modesto Junior College, since 1928; Lecturer in English, Stanford, Summer Quarter, 1926, Acting Assistant Professor of Education, Summer Quarters, 1928, 1929.

†Cooper, William Alpha (123) 625 Salvatierra* (PA 6518)
Professor of German

A.B., Marietta, 1892, A.M., 1897, Litt.D., 1917. Student, Universities of Bonn, Leipzig, and Paris, 1892–94, Stanford University, 1901–3, University of Berlin, 1908–9; Instructor in German and French, Marietta College, 1895–99, Professor, 1899–1901; Ehrenmitglied, Deutsche Akademie, 1929. At Stanford since 1901.

†Coover, John Edgar (123) 535 Salvatierra-*648* (PA 4617)
Fellow in Psychic Research, and Associate Professor of Psychology

A.B., Stanford, 1904, A.M., 1905, Ph.D., 1912. Principal, Como (Colo.) Schools, 1898–99; Principal, Sonora (Calif.) High School, 1905–7, Dixon High School, 1907–10; Assistant in Psychology, Stanford University, 1910–12; Captain, Sanitary Corps, U.S.A., Psychological Division, Medical Research Laboratory (Military Aëronautics), 1918–19; Professor in Psychological Laboratory, Johns Hopkins University, First Semester, 1927–28. At Stanford since 1910.

†Cottrell, Edwin Angell (123) 744 Coronado-*3004* (PA 7109)
Professor of Political Science

A.B., Swarthmore, 1907; A.M., Harvard, 1913. Instructor in Political Science, Pennsylvania State College, 1907–11, Assistant Registrar, 1909–11; Assistant in Government, Harvard University, 1911–15; Swarthmore Fellow, 1912–13; Instructor in Government, Wellesley College, 1912–17; Lecturer in Constitutional Government, Brown University, 1915–16; Secretary of the Boston Budget Commission, 1915; Assistant Secretary, Boston Chamber of Commerce, 1916–17; Professor of Political Science, and Director of the Bureau of Governmental Research, Ohio State University, 1917–19; Special Investigator, United States Bureau of Efficiency, 1918; Visiting Lecturer in Government, Harvard University, Summer, 1913, Spring, 1922; Visiting Professor, University of Washington, Summer Quarter, 1925. At Stanford since 1919.

†Cowdery, Karl Montague (1234) 621 Alvarado (PA 5879)
Assistant Registrar

A.B., Oberlin, 1915; A.M., Stanford, 1922, Ph.D., 1926. Student, Eugenics Record Office, Summer, 1915; Research Worker, Whittier State School, 1915–17; Psychological Examiner, U.S. Army, 1918; Assistant Superintendent, Whittier State School, 1919–22, Director of Education, 1922–23; Teaching Assistant in Psychology, Stanford, 1923–24. At Stanford since 1923.

CRAIG, FLORENCE MARGARET (1234) 332 Forest, P* (PA 3970)
Reviser, Catalogue Department, Library

A.B., University of Minnesota, 1914; B.L.S., University of Illinois, 1917. Assistant, University of Minnesota Library, 1917–18; with the H. W. Wilson Company, New York City, 1925–26. At Stanford, 1918–25, and since 1926.

†CRAIG, HARDIN (123) 536 Gerona-*2815* (PA 7547)
Professor of English

A.B., Centre College, 1897; A.M., Princeton, 1899, Ph.D., 1901. Instructor in English, Princeton, 1901–5, Edgerstoune Preceptor in English, 1905–10; Professor of English, University of Minnesota, 1910–19; Professor of English and Head of Department, University of Iowa, 1919–28. At Stanford since 1928.

CRAIG, ROBERT GLENN (123) Hotel Fairmont, SF-sf (Douglas 8800)
Clinical Instructor in Obstetrics and Gynecology

A.B., Washington and Lee University, 1917; M.D., Johns Hopkins, 1922. Resident House Officer, Johns Hopkins Hospital, 1922–23; Assistant in Pathology, Johns Hopkins Medical School, 1923–24, Assistant and Instructor in Gynecology, 1923–27; Assistant Resident in Gynecology, Johns Hopkins Hospital, 1923–26, Resident Gynecologist, 1926–27. At Stanford since 1928.

†CROOK, WELTON JOSEPH (123) 675 San Juan-*985* (PA 4327)
Professor of Metallurgy

A.B., Stanford, 1911, Engineer, 1919. Chemist and Assayer, Department of Mines and Water Supply, Victorian Government, Australia, 1907–8; Assistant, Department of Metallurgy, Stanford University, 1910; Chief Chemist, Pacific Coast Steel Company, South San Francisco, 1911–13; Professor of Metallurgy, State School of Mines, South Dakota, 1913–17; Metallurgical Chemist, U.S. Bureau of Mines, P.P.I.E., 1915; Metallurgist and Chief Chemist, Pacific Coast Steel Company, 1917–19, Metallurgist and Chief Inspector, 1919–20, Chief Metallurgist, 1920–21; Co-operating Analyst, U.S. Bureau of Standards, since 1920; Consulting Engineer, U.S. Bureau of Mines, 1922; Consulting Metallurgical Engineer, Pacific Coast Steel Company, San Francisco, since 1922, The D. and B. Pump and Supply Company, Los Angeles, since 1926, the Elliott Core Drilling Company, Los Angeles, since 1926, The General Petroleum Corporation, Los Angeles, since 1927; Major Staff Specialist Reserve, U.S. Army, since 1927. At Stanford since 1921.

†CROSS, CHARLES NORMAN (123) 634 Alvarado-*1206* (PA 7646)
Associate Professor of Mechanical Engineering

M.E., Cornell, 1906. Assistant Engineer, Long Island State Hospital, Brooklyn (N.Y.), 1905; Dynamo and Switchboard Attendant with the New York Edison Co., New York City, 1905–6; Electrician with the Lackawanna Steel Co., Buffalo (N.Y.), 1906; with Turbine Research Department of General Electric Company, Lynn (Mass.), 1914–15; Consulting Engineer, Pacific Gas and Electric Company, and Palo Alto Gas Company, 1917; Efficiency Engineer, Federal Fuel Administration, 1918; Member, Committee on Revision of Boiler Safety Orders, Industrial Accident Commission of the State of California, 1921–22; Consulting and Engineering work with various corporations during summer vacations. At Stanford since 1906.

†CUBBERLEY, ELLWOOD PATTERSON (4) 610 Cabrillo (PA 3660)
Professor of Education, and Dean of School of Education

A.B., Indiana, 1891; A.M., Columbia, 1902, Ph.D., 1905; LL.D., Iowa, 1923. Instructor in Science, Ridgeville College (Ind.), 1891; Professor of Physical Science, Vincennes University (Ind.), 1891–93, President, 1893–96; Superintendent of City Schools, San Diego (Calif.), 1896–98; Honorary Fellow, Columbia University, 1901–2, 1904–5; Professor of Education, University of California, Summer Sessions, 1901, 1906, University of Chicago, Summer Quarter, 1910, Harvard University, second half-year, 1910–11; Visiting Professor, Columbia University, Summer Sessions, 1907, 1914, 1916, second half-year, 1915–16, and 1929–30. At Stanford since 1898.

†CUDDEBACK, MURRAY WILLIAM (123) 228 Santa Rita, P* (PA 6476)
Assistant Director of Physical Education

A.B., Stanford, 1926. Instructor, Marin Union Junior College, 1926–29. At Stanford since 1929.

†Culver, George Bliss (1234) 723 Santa Ynez* (PA 8110)
Dean of Men

A.B., Stanford, 1897; LL.B., George Washington University, 1902. With Smithsonian Institution, Washington (D.C.), 1898–99; Head of Biological Department, Los Angeles High School, 1907–20. At Stanford since 1920.

Cummings, N. Florence (123) 999 Broadway, SF-sf (Prospect 6629)
Director of Social Service and Public Health Nursing, and
Associate Professor of Nursing

St. Luke's Hospital Training School for Nurses (New Bedford, Mass.); Simmons College Public Health Nursing Course; Boston School of Social Work. At Stanford since 1923.

†Cuneo, Joseph Charles (123) 150 S. Fourteenth, SJ-sj (Ballard 7388)
Clinical Instructor in Medicine

B.S., Princeton, 1917; M.D., Johns Hopkins, 1922. Medical Interne, Johns Hopkins, 1922–23; Medical Resident, Allegheny General Hospital, Pittsburgh, 1923–24. At Stanford since 1927.

†Cushing, Oscar Kennedy (123) 37 Seventh Ave., SF-sf (Skyline 0987)
Lecturer in Law

†Cutting, James Arthur (123) Agnew-a (Ballard 1728)
Assistant Clinical Professor of Medicine (Psychiatry)

A.B., Stanford, 1906; M.D., Cooper Medical College, 1911. Interne, Lane Hospital, 1911–12, Senior Medical Interne and House Officer, 1912–13; Assistant Physician, Agnew State Hospital, since 1913. At Stanford since 1921.

Dallas, Donald Alexander (123) Olympic Club, SF-sf (Prospect 4400)
Clinical Instructor in Obstetrics and Gynecology

A.B., Stanford, 1923, M.D., 1926. Interne, San Francisco Hospital, 1925–26; Senior Interne, Obstetrics and Gynecology, Lane Hospital, 1926–27; Assistant Resident, Obstetrics, Johns Hopkins Hospital, 1927–28; Resident, Obstetrics and Gynecology, Lane Hospital, 1928–29. At Stanford since 1928.

[†Danforth, Charles Haskell 951 Bryant, P* (PA 4655)
Professor of Anatomy]

A.B., Tufts, 1908, A.M., 1910; Ph.D., Washington University, 1912. Fellow in Biology, Tufts College, 1908, Instructor, 1910–11; Teaching Fellow in Anatomy, Harvard Medical School, 1910–11; Instructor in Anatomy, Washington University School of Medicine, 1908–14, Associate, 1914–16, Associate Professor, 1916–22. At Stanford since 1922.

†Daniels, Farrington (4) 611 Alvarado (PA 4992)
Acting Professor of Chemistry

B.S., Minnesota, 1910, M.S., 1911; Ph.D., Harvard, 1914. Instructor in Chemistry, Worcester Polytechnic Institute, 1915–16, Assistant Professor, 1916–17; First Lieutenant, C.W.S., 1918; Electro Chemist, U.S. Fixed Nitrogen Research Laboratory, 1919–20; Assistant Professor of Chemistry, University of Wisconsin, 1920–24, Associate Professor, 1924–28, Professor, since 1928.

Davenport, Herbert Joseph (4) 410 Kipling, P*
Acting Professor of Economics

Ph.B., University of South Dakota, 1894; Ph.D., Chicago, 1898. Instructor in Political Economy, University of Chicago, 1902–4, Assistant Professor, 1904–7, Associate Professor, 1907–8; Professor and Head of Department of Economics, University of Missouri, 1908–16, Dean of School of Commerce, 1914–16; Professor of Economics, Cornell University, 1916–28, Emeritus since 1928; Professor of Economics, Columbia University, Summer Sessions, 1921–28.

†Davidson, Percy Erwin (124) Menlo Heights-*506* (PA 6880)
Associate Professor of Education

A.B., Stanford, 1898; A.M., Harvard, 1905; Ph.D., Columbia, 1914. Teacher, Grammar and High Schools, San Diego, 1898–1900; Supervisor of History and English

Teaching, San Francisco State Normal School, 1900–1903; Assistant in Education, San Diego State Normal, 1903–4; Graduate Student, Teachers' College, Columbia University, 1905–7; Instructor in Logic and History of Education, New York Training School for Teachers, 1906–7. At Stanford since 1907.

†DAVIS, ALBERT DAVID (123) 735 Taylor, SF-sf (Prospect 0630)
Clinical Instructor in Surgery (Plastic Surgery)

D.D.S., Creighton University, 1911; B.S., Omaha, 1919; M.D., Nebraska, 1921. Instructor in Oral Surgery, University of Nebraska, 1921–24; Graduate Work in Plastic Surgery in European Clinics, 1924–26. At Stanford since 1928.

†DAVIS, JOSEPH STANCLIFFE (1) 691 Mirada* (PA 6265)
Director, Food Research Institute

A.B., Harvard, 1908, Ph.D., 1913. Instructor in Economics and Sociology, Bowdoin College, 1912–13; Instructor in Economics, Harvard University, 1913–17; Tutor in the Division of History, Government, and Economics, Harvard University, 1914–20; Assistant Professor of Economics, Harvard University, 1917–21; Assistant Statistician, American Shipping Mission, and Statistician of the Allied Maritime Transport Council, London, 1918–19. At Stanford since 1921.

†DAVIS, WILLIAM HAWLEY (1234) 686 Lasuen (PA 5967)
Professor of English, and Editor of University Press

A.B., Harvard, 1905; A.M., Columbia, 1908. Instructor in Public Speaking, Harvard College, Summer Sessions, 1908, 1909, and first half-year 1908–9; Professor of English and Public Speaking, Potsdam (N.Y.) State Normal School, 1909; Assistant Professor of Public Speaking, University of Kansas, 1909–10; Instructor in Public Speaking, Columbia University, Summer Session, 1910–12; Professor of English and Public Speaking, Bowdoin College, 1910–25. At Stanford since 1924.

†DAVIS, WILLIAM MORRIS (1) 1100 Bryant, P-p (PA 3661)
Lecturer in Physiographic Geology

S.B., Harvard, 1869, M.E., 1870; Hon. Ph.D., Greifswald, 1903, Christiania, 1908; Hon. S.D., Cape of Good Hope, 1905, Melbourne, 1914. Assistant in Geology, Harvard, 1876, Instructor, 1879–84, Assistant Professor of Physical Geography, 1884–89, Professor, 1889–99, Sturgis Hooper Professor of Geology, 1899–1912, Professor of Geology, Emeritus, since 1912; Visiting Professor, University of Berlin, 1908–9, University of Paris, 1911–12; Lecturer, State University of Texas, 1926, University of California, 1927, University of Arizona, 1927–29.

†DEWEY, EARLE THOMAS (123) 332 Forest, P* (PA 21206)
Assistant Professor of Bacteriology and Experimental Pathology

A.B., Minnesota, 1925, B.S., 1926, A.M., 1927, M.B. and M.D., 1928. Fellow in Bacteriology, Minnesota, 1926–28; Agent, Bureau of Biological Survey, 1928–29. At Stanford since 1929.

DICKEY, LLOYD BLACKWELL (123) 2480 Washington, SF-sf
Associate Professor of Pediatrics [(Fillmore 5885)

A.B., Fargo College, 1915; A.M., Illinois, 1917; B.S., Minnesota, 1921, M.B., 1922, M.D., 1923. Assistant in Zoölogy, University of Illinois, 1915–18; Instructor in Anatomy, University of Minnesota, 1919–21; Assistant, Puget Sound Marine Biological Station, 1921; Assistant in Medicine, University of Minnesota, 1922; Interne, State Hospital for Crippled Children, St. Paul (Minn.); Junior Interne, Lane Hospital, 1923–24, Senior Interne and Assistant in Pediatrics, 1924–25, Resident, 1925–26; Visiting Pediatrician in Tuberculosis, San Francisco Hospital, since 1927. At Stanford since 1923.

†DICKSON, ERNEST CHARLES (123) 155 San Fernando Way, SF-sf
Professor of Public Health and Preventive Medicine [(Lockhaven 4298)

A.B., Toronto, 1904, M.B., 1906, M.D., 1917. Assistant Demonstrator in Physiology, University of Toronto, 1904–5, George Brown Research Scholar, 1906–7; Assistant Resident Physician, Johns Hopkins Hospital, 1907–8; Instructor in Pathology and Bacteriology, Cooper Medical College, 1908–10; Assistant Professor of Pathology, Stanford, 1910–13, Assistant Professor of Medicine, 1913–18, Associate Professor, 1918–23, Professor since 1923; Captain, Canadian A.M.C., February 1918 to July 1919. At Stanford since 1910.

†Dietrich, Waldemar Fenn (123) 694 Alvarado* (PA 3368)
Professor of Mining Engineering

A.B., Stanford, 1913, Engineer, 1914. Acting Instructor in Mining, Stanford, 1913–14; Engineer with Copper Queen Consolidated Mining Company, Bisbee (Ariz.), 1914–15; Engineer and later Assayer with Consolidated Arizona Smelting Company, Humboldt (Ariz.), 1916; Chief Efficiency Engineer, Cia. de Santa Gertrudis, Pachuca (Mexico), 1923–24; Ceramic Engineer, California State Mining Bureau, 1925–27; Consulting Ceramist, Pacatome Company, since 1927. At Stanford, 1913–14, and since 1916.

†Dillon, James Root (1234) 2670 Greenwich, SF-sf (Fillmore 3071)
Associate Clinical Professor of Surgery (Genito-Urinary)

A.B., Stanford, 1908; M.D., Cooper Medical College, 1912. Assistant in Medicine (Neurology), Stanford, 1913–14, Assistant in Surgery (Genito-Urinary) since 1915, Acting Head, Division of Urology, since 1925; Assistant Visiting Surgeon (Genito-Urinary), San Francisco Hospital, since 1917. At Stanford since 1913.

†Doane, Rennie Wilbur (123) 762 Dolores (PA 7363)
Professor of Zoölogy

A.B., Stanford, 1896. Assistant in Zoölogy and Botany, Washington State College, 1896–99, Assistant Professor of Zoölogy and Entomology, 1899–1901; Superintendent, Fisheries Experiment Station, Keyport (Wash.), 1901–3. At Stanford since 1905.

†Dobbel, Charles Arthur (1) Middlefield and Willow, P-*1455* (PA 3651)
Assistant Professor of Mining and Metallurgy

A.B., Stanford, 1921. Assistant in Instruction, Civil Engineering, Stanford, 1918–21, Geology, Summer, 1921; Fellow in Mining and Metallurgy, Stanford, 1920–21; Chief Engineer, North Butte Mining Co., 1922–23, Mine Examination work, in Montana, Idaho, Utah, and Arizona, 1923; Engineer in charge of Prospecting, Chief Consolidated Mining Co., 1923–25; Research in Geophysical Prospecting, 1925; Geologist, Moctezuma Copper Co., Sonora (Mexico), 1925–26; Superintendent of Operating Properties, Ahumada Lead Co., Chihuahua (Mexico), 1926–28; Manager, Cia. del F.C. Chihuahua y Oriente, B.A., 1926–28; Acting Instructor, Stanford, Spring Quarter, 1927–28. At Stanford since 1928.

†Dock, George (123) 94 N. Madison, Pasadena-p (Colorado 2678)
Lecturer in Tropical Medicine

M.D., Pennsylvania, 1884; A.M. (honorary), Harvard, 1895; Sc.D. (honorary), Pennsylvania, 1904. Interne, St. Mary's Hospital, Philadelphia, 1884–85; Assistant in Clinical Pathology and Physician to Medical Dispensary, University of Pennsylvania, 1887–88; Professor of Pathology and Clinical Medicine, Texas Medical College and Hospital, 1888–91; Professor of Medicine, University of Michigan, 1891–1908; Professor of Medicine, Tulane University, 1908–10; Professor of Medicine, Washington University, St. Louis, 1910–22.

†Dock, William (1234) 12 Commonwealth, SF-sf (Skyline 5116)
Associate Professor of Medicine

B.S., Washington University, 1920; M.D., Rush Medical College, 1922. Medical House Officer, Peter Bent Brigham Hospital, Boston, 1922–23, Assistant Resident Physician, 1923–24; Graduate Student, First Medical Clinic, Vienna, 1924–25; Medical Resident, Lane and Stanford Hospitals, 1925–26. At Stanford since 1926.

†Domonoske, Arthur Boquer (123) 676 Lasuen-*2696* (PA 5971)
Professor of Mechanical Engineering

B.S., California, 1907, M.S., 1909. Practical experience with Westinghouse Electric and Manufacturing Company, Deere and Company, C. L. Best, etc.; Instructor, University of California, 1907–10, 1911–13; Instructor, University of Illinois, 1913–15; with Holt Manufacturing Company, 1915–16; U.S.S. Board School, 1918; Assistant Professor of Mechanical Engineering, University of California, 1919–22; Chief Engineer, Doble Steam Motors Company, 1922–23; Associate Professor of Experimental Engineering, and Director of the Shops, University of California, 1923–26. At Stanford since 1926.

†Dowrie, George William (123) 421 El Escarpado (PA 4878)
Professor of Finance (Graduate School of Business)

A.B., Lake Forest, 1901; A.M., Chicago, 1907; Ph.D., Illinois, 1913. Fellow in Economics, University of Illinois, 1910–11, Assistant in Economics, 1911–13; Assistant Professor of Finance, University of Michigan, 1913–16, Associate Professor, 1916–17, Professor, 1917–18; Member of Staff, Guaranty Trust Company of New York, 1918; Professor of Finance, University of Minnesota, 1918–19, Dean of the School of Business, and Head of the Department of Economics, 1919–26; Professor of Economics, University of California, Summer Sessions, 1924, 1929. At Stanford since 1926.

Doyle, Anastasia (4) Roble-*1772* (PA 5171)
Acting Social Director (Roble Hall)

A.B., Minnesota, 1908; A.M., Columbia, 1927. Teacher of History, Humboldt High School and Mechanics High School, St. Paul (Minn.), 1910–27; Assistant to Dean of Women, New Jersey College for Women, 1927–30.

DuBois, Robert (123) 129 Emerson, P* (PA 5654)
Instructor in Chemistry

A.B., Carleton College, 1918; M.S., Oklahoma Agricultural and Mechanical College, 1919; Ph. D., Stanford, 1929. Assistant Professor of Chemistry, Oklahoma Agricultural and Mechanical College, 1919–22, Associate Professor, 1922–25; Assistant Professor of Chemistry, Oklahoma City University, 1925–26; Teaching Fellow, Stanford, 1926–27, University Fellow, 1927–29. At Stanford since 1929.

†Duncan, William Bryan (123) 275 Fernando, P-*994* (PA 21108)
Assistant Professor of Electrical Engineering

A.B., Stanford, 1925, Engineer, 1926. At Stanford since 1927.

Dyment, Bertha Sabin Stuart (Mrs.) (1234) 574 Foothill-*2238* (PA 3459)
Medical Adviser of Women, and Director of Roble Gymnasium

A.B., Michigan, 1903, M.D., 1908. Assistant Director of Physical Education for Women, University of Michigan, 1902–7, Director, 1907–9; Director of Physical Education for Women and Medical Adviser, University of Oregon, 1909–15; Instructor, Summer School, University of Utah, 1912; Instructor, University of California, Summer Sessions, 1912, 1914; Director of Physical Education for Women and Medical Adviser, Reed College, 1915–20; Overseas, American Red Cross, December 1917–January 1918; Head of Reconstruction Clinic, Portland, April–September 1919; Medical Adviser for Women, University of Oregon, 1920–26; Pediatrician, Eugene Hospital, 1926–27; Clinical work for California State Board of Health and Alameda County Health Association, 1927–28. At Stanford since 1929.

Eberhard, Clara (123) 575 Grant, Santa Clara* (SC 549J)
Instructor in German

A.B., Stanford, 1897, A.M., 1923. At Stanford since 1923.

†Edy, John North (123) 854 Euclid, Berkeley-h (Ashberry 0712)
Lecturer in Political Science (Public Management)

B.S., University of Missouri, 1905, C.E., 1909; A.M., University of California, 1927. County Highway Engineer, Butler County (Mo.); Deputy County Engineer, Yellowstone County (Mont.); Assistant City Engineer, Billings (Mont.); Highway Engineer and County Engineer, Yellowstone County (Mont.); Assistant Chief Engineer and Chief Engineer, State Highway Commission of Montana; City Manager of Berkeley, since 1923; President, International City Manager's Association, 1928.

†Eells, Walter Crosby (1234) 735 Dolores (PA 7176)
Associate Professor of Education

A.B., Whitman College, 1908; A.M., Chicago, 1911; Ph.D., Stanford, 1927. Professor of Mathematics, Whitworth College, 1911–14; Instructor in Mathematics, U.S. Naval Academy, 1914–16; Instructor in Surveying, Harvard Engineering Camp, Summer Quarter, 1916; Professor of Applied Mathematics, Whitman College, 1916–26, Professor of Education, 1926–27; Acting Associate Professor of Education, Stanford, Summer Quarters, 1926, 1927. At Stanford since 1927.

†Ellington, Will Boyd (1234) 587 Alvarado* (PA 3768)
Assistant Director, School of Hygiene and Physical Education

A.B., Stanford, 1927. At Stanford since 1927.

Eloesser, Leo (123) 2154 Leavenworth, SF-sf (Graystone 5643)
Clinical Professor of Surgery

B.S., University of California, 1900; M.D., Heidelberg, 1907. Volunteer Assistant, Surgical Clinic, Heidelberg, 1906; Assistant, Cancer Institute, Heidelberg, 1906–7; Volunteer Assistant, Royal Surgical Clinic, Kiel, 1908–9; Volunteer Assistant, Augusta Hospital, Berlin, 1909; Assistant in Surgery, University of California, 1910–12; Surgeon to Reserve Hospital, Ettlingen, and Reserve Hospital III, IV, V, Karlsruhe, 1915–16; Major, M.C., U.S.A., November 1918 to November 1919. At Stanford since 1913.

†Ely, Leonard W. (1234) 2161 Bryant, P-p (PA 7810)
Professor of Surgery (Orthopedics)

A.B., Columbia, 1889; M.D., College of Physicians and Surgeons, Columbia University, 1895. Captain, M.C., U.S.A., September 1917 to February 1919. At Stanford since 1913.

†Emerson, James Gordon (123) 636 Alvarado (PA 7490)
Associate Professor of English (Public Speaking)

B.S., Iowa State College, 1912; J.D., Stanford, 1915. Student, Harvard Law School, 1912–13, University of California Law School, Summer Session, 1914; Instructor in Public Speaking, Kansas State Agricultural College, 1915–16, Assistant Professor, 1916–17, Professor and Department Head, 1917–21. At Stanford since 1921.

†Emge, Ludwig Augustus (1234) 109 Edgewood, SF-sf (Lockhaven 4849)
Associate Clinical Professor of Obstetrics and Gynecology

B.S., Chicago, 1912; M.D., Rush Medical College, 1914. Assistant in Anatomy, University of Chicago, 1912–13; Special Worker in Pathology, Rush Medical College, 1913–14; Interne, Durant and Presbyterian Hospitals, Chicago, 1914–15; Resident and Assistant in Gynecology and Obstetrics, University of California Hospital, 1915–17. At Stanford since 1917.

†Emmet, Boris (124) 765 Forest, P-*2156* (PA 4744)
Professor of Business Management (Graduate School of Business)

A.B., University of Wisconsin, 1913, A.M., 1914; Ph.D., Johns Hopkins, 1917, Field Expert, U.S. Commission on Industrial Relations, 1914; Statistical Expert and Economist, U.S. Department of Labor, 1915–17; Lecturer on Industrial Relations, University of Washington, 1918; Director of Labor, New York Dress and Waist Manufacturers' Association, 1919; Director of Labor and of Clothiers' Research Bureau, Baltimore Market, Men's Clothing Industry, 1920; Lecturer on Factory Management, Johns Hopkins University, 1922; Field Staff, U.S. Coal Commission, 1923; Labor Manager, Henry Sonneborn Company, Baltimore (Md.), 1921–23, Production Manager, 1924, Works Manager, 1925–27; Treasurer, B. F. Schlesinger and Sons, Inc., San Francisco, 1928–1929. At Stanford since 1927.

†Erwin, Ernest S. (1234) 707 Salvatierra* (PA 21181)
Auditor

At Stanford since 1919.

†Espinosa, Aurelio Macedonio (123) 632 Foothill-*1555* (PA 21645)
Professor of Romanic Languages

A.B., Colorado, 1902, A.M., 1904; Ph.D., Chicago, 1909. Assistant in Romance Languages, University of Colorado, 1901–2, Instructor, Summer Terms, 1904, 1905; Professor of Romance Languages, University of New Mexico, 1902–10; Fellow in Romance Languages and Instructor in Spanish, University of Chicago, 1908–9; Visiting Professor, Summer Sessions, University of Chicago, 1914, University of California, 1912, 1915, 1922, 1925; Associate Editor, *Journal of American Folklore,* since 1914; Editor, *Hispania,* 1917–26; Associate Editor, *Language,* since 1925; Corresponding Member of the Royal Spanish Academy, 1921; Corresponding Member of the Real Academia Hispano-Americana de Ciencias y Artes, 1921; Comendador

con Placa de la Real Orden de Isabel la Católica, 1922; President, American Folklore Society, 1924, 1925; President, American Association of Teachers of Spanish, 1928; President, Pacific Coast Branch of American Philological Association, 1929. At Stanford since 1910.

EVERMANN, BARTON WARREN (123) 2715 Woolsey, Berkeley-b
Lecturer in Zoölogy [(Olympic 1400)

B.S., Indiana, 1886, A.M., 1888, Ph.D., 1891, LL.D., 1928; LL.D., University of Utah, 1922. Professor of Biology, Indiana State Normal School, 1886–91; Member, International Fur Seal Commission, 1892; Ichthyologist, 1891–1903; Assistant in Charge, Scientific Inquiry, 1903–10; Vice-President, Board of Education, District of Columbia, 1906–10; Member, International Fisheries Commission, 1908–9; Chief, Alaska Fisheries Service, U.S. Bureau Fisheries, 1910–14; Lecturer, Stanford, 1893–94, Cornell, 1900–1903, Yale, 1903–6; Director of Museum, California Academy of Sciences, since 1914, Director of Aquarium, since 1922; Chairman, Section on Scientific Research, Commonwealth Club of California, since 1917.

†FABER, HAROLD KNIEST (1234) 2080 Vallejo, SF-sf (Fillmore 3080)
Professor of Pediatrics

A.B., Harvard, 1906; M.D., Michigan, 1911. Medical Interne, New York Hospital, 1911–13; Resident Pathologist, Babies' Hospital, New York, 1913–14; Fellow, Rockefeller Institute, New York, 1914–15; Captain, M.C., U.S.A., February 1918 to August 1919. At Stanford since 1915.

†FAGAN, ELMER DANIEL (123) 519 Tennyson, P-p (PA 6297)
Associate Professor of Economics

A.B., Oklahoma, 1920; A.M., Harvard, 1921, Ph.D., 1926. Instructor in Economics, University of Southern California, 1921–22, Assistant Professor, 1923–24, Associate Professor, 1925–26, Professor, 1927–28; Visiting Professor of Economics, University of Virginia, Summer Quarters, 1928, 1929. At Stanford since 1928.

†FARMER, EDWARD MCNEIL (1234) 1715 Waverley, P* (PA 7308)
Instructor in Education (Graphic Art)

A.B., Stanford, 1923, A.M., 1926. Student, Art Students League, June–December 1929. At Stanford since 1923.

†FARNSWORTH, PAUL RANDOLPH (123) 851 Homer, P-p (PA 8155)
Assistant Professor of Psychology

A.B., Ohio State University, 1921, A.M., 1923, Ph.D., 1925. Assistant in Psychology, Ohio State, 1920–22, Special Assistant, Summer, 1922, Instructor, 1922–24; Student, University of Missouri, Summer, 1923; University Fellow, Ohio State, 1924–25. At Stanford since 1925.

FAST, LISETTE EMERY (1234) 528 Lincoln, P-*1438* (PA 21358)
Secretary, Citizenship, Public Exercises, and Independent Study Plan Committees

A.B., Stanford, 1919; M.B.A., University of Washington, 1921. Research Assistant, Food Research Institute, Stanford, 1922–23. At Stanford, 1922–27, and since 1928.

FAYLE, JANE (1234) 206 Emerson, P* (PA 6602)
Secretary to Dr. Storey

At Stanford since 1927.

FEARING, FLORA MAY (MRS.) (4) Stanford University*
Acting Instructor in Political Science and Public Health Nursing

A.B., Stanford, 1917, A.M., 1918. Instructor in Political Science, Vassar College, 1918–19; Supervisor, Neuro-Psychiatric Cases, American Red Cross, Louisville (Ky.), 1920; Director, Psychiatric Social Investigation, Cincinnati Mental Hygiene Survey, National Committee for Mental Hygiene, 1921; Acting Instructor in Political Science, Stanford, Spring Quarter, 1921–22; Lecturer in Economics and Sociology, Mills College, 1922–23; Instructor in Citizenship, Stanford, 1923–26; Instructor in Political Science, Ohio State University, 1926–28; Research Associate, Northwestern University, since 1928.

FENNER, WILMA EDA (4) 1010 Forest, P-p (PA 7287)
Acting Instructor in Physical Education for Women

A.B., Stanford, 1927, A.M., 1928. Acting Instructor in Physical Education, Stanford, Summer Quarters, 1928, 1929; Instructor in Ancient Languages, University of Utah, since 1928.

†FERRIS, GORDON FLOYD (123) 667 Melville, P* (PA 8428)
Associate Professor of Zoölogy

A.B., Stanford, 1916, A.M., 1918. Fellow of the Guggenheim Memorial Foundation (traveling in Mexico), 1925–26; Instructor, Deep Springs School, Autumn, 1928. At Stanford since 1916.

FERRIS, ROXANA STINCHFIELD (MRS.) (1234) 667 Melville, P* (PA 8428)
Assistant Curator, Dudley Herbarium

A.B., Stanford, 1915. At Stanford since 1916.

†FIELD, JOHN, II (123) 648 Alvarado* (PA 8191)
Assistant Professor of Physiology

A.B., Stanford, 1923, A.M., 1924, Ph.D., 1928. Assistant in Chemistry, Stanford, 1923–24, Food Research Fellow, 1924–25. At Stanford since 1923.

†FISH, CARL RUSSELL (4) Kingscote*
Acting Professor of History

A.B., Brown, 1897; A.M., Harvard, 1898, Ph.D., 1900. Fellow in History, Harvard, 1899–1900; Lecturer, Radcliffe, 1900; Instructor, Assistant Professor, Associate Professor, and Professor of History, University of Wisconsin, since 1900; Research Associate, Carnegie Institution, Rome, 1908–9; Director, British Branch, American University Union, 1919.

†FISH, JOHN CHARLES LOUNSBURY (123) 308 Lincoln, P* (PA 7124)
Professor of Civil Engineering

C.E., Cornell, 1892. Instructor in Civil Engineering, Cornell University, 1892–93; Division Engineer, Lake Shore & Michigan Southern Railway (New York Central Line West), 1906–8. At Stanford since 1893.

†FISHER, ARTHUR LAWRENCE (123) 3333 Jackson, SF-sf (Fillmore 3620)
Associate Clinical Professor of Surgery (Orthopedics)

B.S., California, 1896; M.D., Johns Hopkins, 1900. Resident House Officer, Johns Hopkins Hospital, 1900–1901; Fellow, Rockefeller Institute for Medical Research, 1901–2; Assistant Visiting Surgeon, Mount Zion Hospital, San Francisco, 1902–7; Assistant in Surgery, Lane Hospital, 1907–12; Assistant in Orthopedics, Stanford Medical School, 1912–16; Instructor in Orthopedic Surgery, University of California, 1916–19. At Stanford 1912–16, and since 1920.

†FISHER, HAROLD HENRY (23) 473 Embarcadero, P* (PA 6450)
Lecturer in History

A.B., Vermont, 1911. Master, The Black Hall School, 1912, Mercersburg Academy, 1912–14, The Hill School, 1914–17; Student, Summer Sessions, Columbia University, 1914, Dartmouth College, 1916; First Lieutenant, Field Artillery, 1917, Captain (A.E.F.), 1918–19; on staff of *New Republic* and *Washington* (D.C.) *Herald*, 1919–20; with American Relief Administration since 1920, Chief of Department of History and Publications, 1921–24, Curator of Archives, 1924. At Stanford since 1924.

†FISHER, WALTER KENRICK (1234) 844 Laurel, Pacific Grove*
Professor of Zoölogy, and Director of Hopkins Marine Station [(Monterey 407W)

A.B., Stanford, 1901, A.M., 1903, Ph.D., 1906. Assistant, U.S. Biological Survey, 1897–1901, 1903; Assistant, U.S. Fish Commission, 1902, 1904. At Stanford since 1902.

†FLETCHER, HAROLD AUGUSTUS (12) 12 West Clay Park, SF-sf
Assistant Clinical Professor of Surgery (Otology, Rhinology, Laryngology) [(Evergreen 7230)

B.S., California, 1912; M.D., Stanford, 1916. Interne, Lane Hospital, 1916–17; M.R.C., U.S.A., 1917–19. At Stanford since 1919.

†Fluhmann, C. Frederic (4) 2725 Filbert, SF-sf (Walnut 0652)
Associate Professor of Obstetrics and Gynecology

B.A., University of Bishop's College, 1917; M.D., C.M., McGill, 1922. Junior Interne, Montreal General Hospital, 1922–23, Senior Interne, Gynecology, 1923–24; Johns Hopkins Hospital, Obstetrics, 1924–25. At Stanford since 1926.

Fordyce, Elizabeth L. (1234) 583 Alvarado* (PA 5486)
Assistant Secretary to the President

B.S., Mills, 1916. At Stanford since 1920.

Foster, Benjamin Oliver (123) 574 Lasuen-*946* (PA 5752)
Professor of Classical Literature

A.B., Stanford, 1895; A.M., Harvard, 1897, Ph.D., 1899. Parker Fellow of Harvard University, studying in the American School of Classical Studies in Rome, 1899–1900; Acting Professor of Latin and Greek, State Normal College of Michigan, 1900–1901; Assistant Professor of Latin, University of California, Summer Session, 1908, Associate Professor, 1923; Visiting Professor of Latin, University of Chicago, Autumn and Winter Quarters, 1925–26, Summer Quarter, 1928. At Stanford since 1901.

†French, Delbert Ransom (123) 453 Princeton, M-*2006* (PA 21150)
Instructor in Citizenship

A.B., Reed College, 1915; A.M., Wisconsin, 1920; Ph.D., Stanford, 1930. At Stanford since 1927.

†Friend, Will A. (1234) 1026 Forest Court, P-*3001* (PA 7757)
Manager of the University Press

At Stanford since 1920.

Furgason, Waldo H. (123) 10 Stanford Union-*2493* (PA 3121)
Acting Instructor in Biology

A.B., St. Olaf College, 1924. Teaching Assistant in Biology, Stanford, 1928–29. At Stanford since 1928.

†Gardner, David Charles (3) 514 Alvarado
Chaplain, and Lecturer on Biblical History and Literature

Graduate, Church Divinity School of the Pacific, 1897, D.D., 1920. Curate, St. James Mission, San Francisco, 1898; Rector of All Saints Church, Palo Alto, 1898–1902. At Stanford since 1902.

†Garland, Leo Henry (123) 60 Rico Way, SF-sf (Fillmore 5112)
Clinical Instructor in Medicine (Radiology)

M.B., B.Ch., University College (Dublin, Ireland), 1924, M.D., 1924. At Stanford, 1926–27, and since 1928.

Gay, George Inness (1234) 2341 South Court, P-*73* (PA 8025)
Economist, Hoover War Library

B.S., Colorado, 1909, C.E., 1912. Assistant in Mathematics, Colorado, 1906–9, Instructor in Civil Engineering, 1909 10; Instructor in Civil Engineering, Illinois, 1910–11; Instructor in Civil Engineering, California, 1911–15. At Stanford since 1923.

Gianini, Leo Gregory (23) 534A Sixth Ave., SF-sf (Skyline 0336)
Lecturer in Electrical Engineering

A.B., Stanford, 1921.

†Gibbons, Morton Raymond (123) 3979 Washington, SF-sf
Lecturer on Medical Aspects of Insurance [(Bayview 1913)

M.D., Cooper Medical College, 1897. Instructor in Clinical Medicine, Cooper Medical College, 1904–9; Medical Director, Industrial Accident Commission of California, since 1914; Captain and Major, U.S.R., 1917 19; C.O., Base Hospital, Camp Pike, 1918–19. At Stanford 1909–16, and since 1919.

GIBSON, ETTA (1234) Menlo Heights* (PA 6042)
Recording Secretary, Registrar's Office
At Stanford since 1925.

GIBSON, JESSIE EDITH (4) 553 Salvatierra (PA 21360)
Acting Assistant Professor of Education
A.B., University of Idaho, 1903; A.M., University of Washington, 1927. Graduate Student, University of California, Columbia University; Teacher of Modern Languages, North Central High School, Spokane (Wash.), 1903–18, Dean of Girls, 1918–27; Instructor in Education, University of Washington, Summer Sessions, 1925–27; Dean of Women, Pomona College, since 1927; Acting Assistant Professor of Education, Stanford, Summer Quarter, 1928.

GIFFORD, NATALIE MURRAY (4) 1019 Bryant, P-p (PA 5801)
Acting Assistant Professor of Classical Literature
A.B., Radcliffe, 1918, A.M., 1927, Ph.D., 1929; Ed.M., Harvard, 1921. Instructor in Greek, Smith College, 1924–26; Lecturer in Greek, Bryn Mawr College, 1928–29; Assistant Professor of Greek and Latin, Wheaton College (Mass.), 1929–30.

†GILMAN, PHILIP KINGSNORTH (123) 1803 Broadway, SF-sf
Clinical Professor of Surgery [(Ordway 4578)
A.B., Stanford, 1901; M.D., Johns Hopkins, 1905. Assistant Resident Surgeon, Johns Hopkins Hospital, 1905–7; Assistant Professor of Pathology, Philippine Medical School, 1907–8; Assistant Professor of Surgery, College of Medicine and Surgery, University of the Philippines, 1908–12, Professor of Surgery and Chief of Department, 1912–16; Chief Surgeon, Philippine General Hospital, 1912–16; Lieutenant, M.C., U.S.N.R.F., December 1917 to February 1919; Lieutenant Commander, 1925. At Stanford since 1916.

GIRARD, FRANK ROBERT (12) Bohemian Club, SF-sf (Franklin 2441)
Lecturer in Surgery
M.D., California, 1903. Volunteer Assistant Koenigliches Krankenhaus, Berlin, Germany, 1905–6; House Pathologist and House Surgeon, St. Luke's Hospital, New York, 1906–8; Assistant Resident Physician, Sloane Maternity Hospital, New York, 1908–9; Assistant Clinical Professor of Gynecology, Stanford, 1916–25; Major, M.C., U.S.A., December 1917 to November 1919; Attending Surgeon, San Francisco Hospital, since 1925. At Stanford since 1914.

GOESLE, ALVA I. (MRS.) (1234) 4 Perry, Menlo Heights-*3006* (PA 7155)
Recorder, Physical Education and Hygiene for Men
At Stanford since 1926.

†GORDAN, RICHARD A. (123) 159 Churchill, P* (PA 5760)
Associate Professor of Military Science and Tactics
Graduate, Field Artillery School, Fort Sill (Okla.), 1922; Graduate, French Cavalry School, Saumur (France), 1923. Instructor, Field Artillery School, Fort Sill (Okla.), 1924–28; Captain, Field Artillery, U.S. Army. At Stanford since 1928.

[†GOTTBRATH, NORBERT J. Ralston Road, Belmont-b (Belmont 111)
Assistant Clinical Professor of Medicine (Neurology)]
B.S., St. Mary's Institute (Dayton, O.), 1898; M.D., Georgetown University, 1912. Clinical Assistant, Neurological Institute, New York City, 1914–15; Attending Physician and Instructor, Vanderbilt Clinic, 1914–16; Director of Prison Survey, California Branch of American Institute of Criminal Law and Criminology, 1919–21. At Stanford since 1918.

GRAHAM, HARRINGTON BIDWELL (123) Bohemian Club, SF-sf
Associate Clinical Professor of Surgery (Otology, [(Franklin 2441)
Rhinology, and Laryngology)
B.S., California, 1896, M.D., 1899. Superintendent of Waldeck Sanitarium, 1899; Assistant in Surgery, San Francisco Polyclinic, 1904; Assistant, Ear, Nose, and Throat Clinic, Cooper Medical College, 1910–11; Lieutenant, U.S.N.R.F., September 1918 to February 1919. At Stanford since 1912.

†GRANT, EUGENE LODEWICK (13) 1627 College, M* (PA 5204)
Acting Associate Professor of Civil Engineering

B.S., Wisconsin, 1917, C.E., 1928; A.M., Columbia, 1928. With U.S. Geological Survey, 1917, 1919, and summers, 1921, 1922, 1924; Instructor in Navigation, U.S.N.R.F., Officers' Training School, 1918; with Commonwealth Edison Company and Public Service Company of Northern Illinois, in Statistical, Auditing, and Industrial Relations Departments, 1923–24; Sanitary Engineer, Montana State Board of Health, 1927; Instructor in Civil Engineering, Montana State College, 1920, Assistant Professor, 1920–23, 1924–27, Associate Professor, 1928–29, Professor of Industrial Engineering, 1929.

[†GRAY, HENRY DAVID 612 Alvarado
Professor of English]

Ph.B., Colgate, 1897; A.M., Columbia, 1898, Ph.D., 1904; Litt.D., Colgate, 1919. Assistant in German and French, Colgate Academy, 1896–97; University Scholar, Columbia University, 1898–1900; Instructor in Dramatic Literature, American Academy of Dramatic Arts, 1900–1902; Instructor in English, University of Texas, 1902–5; Lecturer in English, Columbia University, Summer Session, 1905, University of Oregon, Summer Session, 1910, University of Illinois, Summer Session, 1912, University of Iowa, Summer Session, 1922, University College, University of London, Michaelmas Term, 1922, Brigham Young University, Summer Session, 1925. At Stanford since 1905.

†GRAY, HORACE (1234) 1925 Gough, SF-sf (Ordway 4623)
Associate Clinical Professor of Medicine

A.B., Harvard, 1909, M.D., 1914. Voluntary Assistant, Johns Hopkins Hospital, 1916; Research Worker, Institute for Juvenile Research, Chicago, 1926–29. At Stanford since 1929.

†GREEN, BOYNTON MORRIS (123) 691 Salvatierra (PA 7469)
Assistant Professor of Mechanical Engineering

A.B., Stanford, 1914, Engineer, 1916. Student Engineer, H. Koppers Company, Pittsburgh (Pa.), 1916; Draftsman and Construction Engineer, Federal Telegraph Company, 1917, 1919–21. At Stanford 1920, and since 1921.

†GREEN, HERLWYN RUGGLES (123) 1121 Emerson, P-p (PA 6724)
Acting Instructor in Anatomy

A.B., Brown University, 1897, A.M., 1898; M.D., University of Pennsylvania, 1903. Medical Corps, U.S.A., 1898–99; Captain, Medical Corps, U.S.A., A.E.F., 1917–19.

GRIFFING, ELIZABETH PERRY (MRS.) (1234) 792 Santa Maria (PA 7836)
Junior Research Associate, Food Research Institute

B.S., Simmons, 1914; A.M., Stanford, 1920. At Stanford since 1920.

†GUÉRARD, ALBERT LÉON (123) 635 Gerona-*1663* (PA 7844)
Professor of General Literature

A.B., Classical, University of Paris, 1898, A.B., Modern, 1899, Agrégé d'Anglais, 1906. Junior Professor of French Literature and Examiner in History, State Normal School, Paris, 1904–6; Professor of English, École des Hautes Études Commerciales, Paris, 1904–6; Instructor in French, Williams College (Mass.), 1906–7; Assistant Professor of French, Stanford, 1906–13, Associate Professor, 1913; Professor of French Civilization and Head of Romance Language Department, Rice Institute, 1913–24; Professor of French and Chairman of French Department, University of California, Southern Branch, 1924–25; Professor of French, University of Chicago, Summer, 1916, 1920, University of California, Southern Branch, Summer, 1921, 1922, 1926, University of Wisconsin, Summer, 1923. At Stanford, 1906–13, and since 1925.

†GULLIKSON, ALBERT CLARENCE (123) 1904 University, P-*10* (PA 7398)
Instructor in Mechanical Engineering

B.S., University of Washington, 1924. Apprentice, Machinist, and Draftsman with several firms in the Northwest, 1915–24; Instructor and Head of the Department of Industrial Arts, Highline High School, Seattle (Wash.), 1924–27; Instructor in Mechanical Engineering, University of Cincinnati, 1927–28. At Stanford since 1928.

†Gunn, Herbert (123) 163 Twenty-sixth Ave., SF-sf (Evergreen 4619)
Lecturer in Tropical Medicine

M.D., Cooper Medical College, 1895.

†Haas, Sylvan Lewis (123) 579 Eleventh Ave., SF-sf (Skyline 8713)
Assistant Clinical Professor of Surgery

B.S., University of California, 1904; M.D., Johns Hopkins Medical School, 1908. Resident Pathologist, Lakeside Hospital, Cleveland (Ohio), 1908–9; Interne, Lane Hospital, 1909–10; Captain, M.C., U.S.A., 1917–20; Associate Chief Surgeon, Shriners' Hospital, San Francisco, since 1923. At Stanford 1912–18, and since 1923.

†Hackett, Charles Wilson (23) 691 Mirada-*1078* (PA 21879)
Acting Professor of History

A.B., Texas, 1909; A.M., California, 1914, Ph.D., 1917. Assistant in History, Stanford, 1910–11; Fellow in History, University of California, 1914–15, Teaching Assistant in History, 1915–17, Resident Fellow, Native Sons of the Golden West, 1917–18; Adjunct Professor of History, University of Texas, 1918–20, Adjunct Professor of Latin-American History, 1920–23, Associate Professor, 1923–25; Visiting Professor in Latin-American History and Economics, Harvard University and Radcliffe College, 1925–26; Professor of Latin-American History, University of Texas, since 1926; Leader of Round Table, Institute of Politics, Williamstown (Mass.), 1928.

Hadden, Elizabeth (1234) 151 Kellogg, P-p (PA 21480)
Chief of Order Division, Library

At Stanford since 1901.

Haley, Bernard Francis (123) 638 Salvatierra (PA 8478)
Assistant Professor of Economics

A.B., Stanford, 1922, A.M., 1923; A.M., Harvard, 1926. Scholar in Economics, Harvard, 1923–24, Fellow, 1925–26. At Stanford, 1924–25, and since 1926.

†Hall, Harvey Monroe (1234) 1301 Bryant, P-p (PA 7983)
Acting Professor of Botany

B.S., California, 1901, M.S., 1902, Ph.D., 1906. Assistant in Botany, University of California, 1903, Instructor, 1903–8, Assistant Professor, 1908–16, Associate Professor, 1916–19; Assistant Botanist, Agricultural Experiment Station, California, 1902–19; Instructor in Botany, Mountain Laboratory, University of Colorado, 1917; Investigator in Experimental Taxonomy, Division of Plant Biology, Carnegie Institution of Washington, since 1919.

‡Hall, Howard Judson (12) University Ave., Los Altos* (LA 171W)
Professor of English

B.S., Michigan State College, 1890; A.B., Stanford, 1896; A.M., Harvard, 1900. Professor of English, and Librarian, University of Arizona, 1891–1904; Instructor, Army Educational Corps, A.E.F., University, Beaune, Côte d'Or, France, 1919. At Stanford since 1904.

†Hall, James Kendall (123) 514 Oberlin, M-55 (PA 3258)
Instructor in Citizenship

A.B., University of Oregon, 1925, A.M., 1926; Ph.D., Stanford, 1929. Graduate Student, University of California, Summer Quarter, 1926; Instructor in Economics, Pomona, 1926–27. At Stanford since 1927.

Hall, Victor Ernest (1234) 735 Middlefield, P-p (PA 5240)
Assistant Professor of Biology (Physiology)

A.B., Stanford, 1922, A.M., 1925, M.D., 1928. At Stanford since 1925.

Handy, Etta Howes (1234) 671 Santa Ynez-869 (PA 3397)
Director of Dining Halls, Women's Dormitory, and Stanford Union

B.S., Washington State College, 1921. Head Institutional Economics, Washington State College, 1918–21. At Stanford since 1921.

HANSEN, HAZEL DOROTHY (123) 513 Salvatierra-*2442* (PA 8953)
Instructor in Classical Literature

A.B., Stanford, 1920, A.M., 1921, Ph.D., 1926. Student, American School of Classical Studies, Athens (Greece), 1922–25, 1927–28, Fellow in the School, 1923–24, Holder of Alice Freeman Palmer Fellowship, 1927–28. At Stanford since 1928.

HANSEN, WILLIAM WEBSTER (234) 315 Stanford Union-*1272* (PA 3121)
Instructor in Physics

A.B., Stanford, 1929. At Stanford since 1929.

†HANZLIK, PAUL JOHN (1234) 819 Prospect Row, San Mateo-sm (SM 1117)
Professor of Pharmacology

Ph.C., Iowa, 1908; A.B., Illinois, 1908, A.M., 1911; M.D., Western Reserve, 1912. Demonstrator in Pharmacology, Western Reserve University, 1912–13, Instructor, 1913–15, Associate, 1915–17, Assistant Professor, 1917–20, Associate Professor, 1920–21; Pharmacological Institute and Physico-Chemical-Biological Institute, University of Vienna, 1913–14; Pharmacologist, Bureau of Mines, Department of Interior, and Captain, M.C., U.S.A., 1918; Associate Editor, *Journal of Pharmacology and Experimental Therapeutics,* since 1921, and *Archives internationales de pharmacodynamie et de thérapie,* since 1928; Member, Council on Dental Therapeutics, American Dental Association, since 1929. At Stanford since 1921.

†HARCOURT, ROBERT HENRY (123) 918 Cowper, P-p (PA 3665)
Teaching Specialist in Forge Practice

Graduate, Santa Barbara State Normal School, 1917. Apprentice and Blacksmith with Risdon Iron Works, San Francisco, 1898–1901, 1903–4; with Hammond Car and Elevator Company, San Francisco, 1901–2, 1904–5; with National Iron Works, San Francisco, 1902–3; Toolman with Abner Doble Steel Company, San Francisco, 1905–6, Foreman of Forge Shop, 1906–7; Instructor in Machine Shop Practice, Forge Practice, and Sheet Metal Work, Santa Barbara State Normal School, Summer Session, 1919. At Stanford since 1907.

†HARRIMAN, RAYMOND DAVIS (123) 530 Harvard, M-*1913* (PA 6974)
Associate Professor of Classical Literature

A.B., Grinnell College, 1909; A.M., Wisconsin, 1914, Ph.D., 1915. Fellow in Latin, University of Wisconsin, 1913–14, Assistant in Ancient History, 1914–15; Fellow in American Academy in Rome, 1915–16; Instructor in Ancient Languages, University of Utah, 1916–17, Assistant Professor, 1917–22, Associate Professor, 1922–28, Acting Dean of Men, 1926–28; Visiting Assistant Professor of Latin, University of Chicago, 1925–26, Visiting Associate Professor, Summer Quarter, 1927; Lecturer in Ancient History, University of Wisconsin, Summer Session, 1926. At Stanford since 1928.

†HARRINGTON, CHARLES HENRY (123) 615 University, P-p (PA 8607)
Instructor in Mathematics

A.B., Stanford, 1925, A.M., 1925. At Stanford since 1927.

†HARRINGTON, EDWARD WENTWORTH (123) 935 Emory, SJ*
Instructor in Citizenship [(Ballard 4939J)

A.B., Stanford, 1920; A.M., California, 1922. High School Teacher, 1921–24; Assistant Professor of Education and Teacher Training, San Jose State Teachers College, 1925–27. At Stanford since 1928.

†HARRISON, GEORGE RUSSELL (124) 622 Salvatierra* (PA 7739)
Associate Professor of Physics

A.B., Stanford, 1919, A.M., 1920, Ph.D., 1922. Instructor in Physics, Stanford, 1919–23; Associate Physicist, Bureau of Standards, Summer, 1921; National Research Fellow in Physics, Harvard, 1923–25. At Stanford, 1919–23, and since 1925.

†HARTMAN, GEORGE W. (123) 1895 Jackson, SF-sf
Lecturer on Genito-Urinary Surgery

B.S., California, 1903; M.D., Johns Hopkins, 1908. Resident Physician, French Hospital, New York, 1908, Flushing Hospital, New York, 1909; Adjunct in Urology,

German Hospital, 1909–18; Urologist, Franklin Hospital, San Francisco, 1918; Assistant, Urological Clinic, San Francisco Polyclinic, 1912–18; Chief of Clinic, San Francisco Polyclinic, 1918; Visiting Urologist, San Francisco Hospital. At Stanford since 1919.

†HARVEY, EDWARD LÉON (123) 355 Kellogg, P-*1975* (PA 21396)
Acting Assistant Professor of History

B.A., Oxon (Final Honour School of Modern History), 1915, M.A., 1921. Fellow of the Royal Historical Society, 1921; Senior Assistant Master (History), Heath Grammar School, Halifax (Yorks.), 1915; Military Service, 1915–19; Professor of English and Modern History, University of New Brunswick (Canada), 1919–27; Acting Professor of European History, University of Washington, 1927–28; Professorial Lecturer in Modern European History, University of Minnesota, 1928–29.

†HASHIMOTO, TADAICHI (1234) 211 Third, Pacific Grove-pg (Monterey 814)
Research Chemist (Jacques Loeb Laboratory)

Research work in Chemistry, since 1923; University Fellow, Stanford, 1925–26; Research Fellow, American Petroleum Institute, since 1927. At Stanford since 1928.

HAYS, ALICE NEWMAN (1234) 526 Alvarado* (PA 4296)
Reference Librarian

A.B., Stanford, 1896; B.L.S., New York State Library School, 1903. Assistant, Home Education Department, New York State Library, 1901. At Stanford since 1901.

HAYS, HARFORD HOLMES (123) 825 University, P-p (PA 8272)
Instructor in English

A.B., Stanford, 1924, A.M., 1927. Assistant in Instruction, Stanford, 1924–27. At Stanford since 1924.

HAZEN, TRACY ELLIOT (4) 872 Laurel, Pacific Grove-pg
Acting Professor of Botany (Hopkins Marine Station)

A.B., Vermont, 1897; A.M., Columbia, 1899, Ph.D., 1900. University Fellow in Botany, Columbia, 1898–1900; Director, Fairbanks Museum of Natural Science, St. Johnsbury (Vt.), 1901–2; Assistant in Botany, Columbia, 1902–3, Tutor, 1903–7, Instructor, 1907–10, Assistant Professor, since 1910; Instructor, Marine Biological Laboratory, Woods Hole (Mass.), 1924–26.

HEASLET, MAX ALFRED (4) 3 Stanford Union-*145* (PA 3121)
Acting Instructor in Mathematics

A.B., Oklahoma, 1927, A.M., 1929. Assistant in Instruction, University of Oklahoma, 1927–29.

†HEATH, HAROLD (1234) 181 Ocean View, Pacific Grove-pg (PG 1808R)
Professor of Zoölogy

A.B., Ohio Wesleyan, 1893; Ph.D., Pennsylvania, 1898; D.Sc., Ohio Wesleyan, 1919. Assistant in Biology, Ohio Wesleyan University, 1891–93; Professor of Biology, University of the Pacific, 1893–94; Harrison Fellow in Zoölogy, University of Pennsylvania, 1896–98. At Stanford since 1894.

†HEATH, HARRISON FRENCH (234) 260 S. Fifteenth, San Jose-sj
Acting Assistant Professor of Education (Ballard 1901M)

B.S., University of Washington, 1916, A.M., 1921. Head of Mathematics Department, Chehalis (Wash.) High School, 1916–17; Supervising Principal of Grades, Chehalis, 1917–18; Instructor in Mathematics, Officer School, U.S. Naval Training Camp, Seattle (Wash.), 1918; Principal, Renton (Wash.) High School, 1919–20, Sedro-Woolley (Wash.) High School, 1920–22; Superintendent of Schools, Burlington (Wash.), 1922–26; Assistant Professor of Mathematics, and Personnel Counselor, San Jose State Teachers College, since 1926; Assistant in Instruction, Education, Stanford, Spring Quarter, 1929, Acting Assistant Professor, Summer Quarter, 1929.

†Helvenston, Harold Finley (1234) 226 Madroño, P-*2182* (PA 8397)
Instructor in English (Public Speaking), and Acting Director of Dramatics

Certificate, Yale University School of the Fine Arts, Department of the Drama. Student, Art Institute of Chicago, 1921–22, 1924; Art and Technical Director, University Players, Southampton, L.I., Season, 1927; Designer of Stage Settings for Connecticut College, New London (Conn.), Amateur Comedy Club of New York City, and Temple Players, San Francisco. At Stanford since 1928.

†Herre, Albert W. C. T. (1234) 211 Alexander, Los Gatos* (LG 457J)
Curator of the Zoölogical Museum

A.B., Stanford, 1904, A.M., 1905, Ph.D., 1909. Assistant in Zoölogy, Stanford, 1903–4; Professor of Biology, University of Nevada, 1909–10; Professor of Geography, Washington State Normal, 1915–17, Professor of Biology and Hygiene, 1917–20; Chief, Division of Fisheries, Bureau of Science, Manila (P.I.), 1920–28. At Stanford since 1928.

†Hetherington, Clark Wilson (234) 707 Salvatierra*
Professor of Hygiene and Physical Education

A.B., Stanford, 1895. Assistant in Physical Training, Stanford, 1891–93, Assistant in charge of Encina Gymnasium, 1893–96; Research Work on Individual Differences, Character Development, and Mental and Physical Tests, Whittier State School, 1896–98; Fellow in Psychology, Clark University, 1898–99, Fellow and Assistant in Psychology, 1899–1900; Professor of Physical Education and Director of Gymnasia and Athletics, University of Missouri, 1900–1910; Joseph Fels Endowment in Play and Educational Athletics, 1910–12; Lecturer, University of Wisconsin, Spring Semester, 1911–12, Fall Semester, 1912–13, Professor of Physical Education in charge of Professional Training Courses, 1913–18; Supervisor of Physical Education, State of California, 1918–21; Investigator in Physical Education, Institute of Educational Research, Teachers College, Columbia University, 1921–22; Research Work on Special Endowment, 1922–23; Professor of Physical Education, School of Education, New York University, 1924–28. At Stanford since 1929.

†Hill, Andrew Putnam, Jr. (4) 662 Mirada
Acting Assistant Professor of Education

A.B., Stanford, 1922. Director of Industrial Arts, San Jose State Normal School, 1911–13; Director of Industrial Education, San Francisco City Schools, 1917–19; Assistant Superintendent, San Jose City Schools, 1924–27; Chief, Division of Schoolhouse Planning, Department of Education, State of California, since 1927.

[†Hill, Harold Phillips 3625 Jackson, SF-sf (Bayview 4329)
Clinical Professor of Medicine]

A.B., Stanford, 1898; M.D., California, 1901. Assistant in Physiology, Department of Medicine, University of California, 1899–1901, Instructor, 1901–3; Assistant Visiting Physician, St. Luke's Hospital, 1903–6, Visiting Physician, 1906–20; Chief of Staff, St. Luke's Hospital. At Stanford since 1912.

†Hill, Henry Granville (123) 465 S. Fifteenth, San Jose-sj
Lecturer in Law [(Ballard 1863)

A.B., Stanford, 1909, J.D., 1911.

†Hinkle, George (1234) 825 University, P-*2335* (PA 8272)
Instructor in English

A.B., Stanford, 1925, A.M., 1928. At Stanford since 1927.

Hitchcock, Jeannette McCrory (1234) 513 Salvatierra-*1287* (PA 8953)
Cataloguer, Library

A.B., Stanford, 1915; B.S. in L.S., University of Washington, 1918. Branch Librarian, South Tacoma Branch, 1918–19; First Assistant Cataloguer, Tacoma Public Library, 1919–22. At Stanford since 1923.

†Hobdy, William C. (123) 2841 Divisadero, SF-sf (Fillmore 6816)
Clinical Instructor in Obstetrics and Gynecology

B.S., Kentucky, 1893; M.D., Columbia, 1896. House Surgeon and Physician, Patterson General Hospital, 1896–98; U.S. Public Health Service, 1898–1910; Chief Quarantine Officer, San Francisco, 1906–9; Visiting Physician, Queen's Hospital, Honolulu, 1910–11, Visiting Surgeon, 1911–15; Member, Territorial Board of Health, Honolulu, 1911–21; President, Medical Society, Hawaii, 1912–13; Visiting Surgeon, Children's Hospital, Honolulu, 1917–18; Assistant in Obstetrics and Gynecology, Stanford, 1925–29. At Stanford since 1925.

Hobe, Adelaide M. (1234) Harvard, MP* (PA 8586)
Junior Statistical Associate, Food Research Institute

At Stanford since 1922.

†Holden, Paul Eugene (123) 2320 South Court, P* (PA 3613)
Professor of Industrial Management (Graduate School of Business)

B.S., Purdue, 1915. With E. C. Atkins & Co., Indianapolis (Ind.), 1915–17; Captain, Ordnance Dept., U.S. Army, 1917–19; Production Manager, Canadian plant, E. C. Atkins & Co., at Hamilton (Ontario), 1919–20; Assistant Production Manager, Remington Typewriter Company, Ilion (N.Y.), 1920–21; Engineer, Library Bureau, Ilion, 1921–22; Assistant Manager, Department of Manufacture, U.S. Chamber of Commerce, 1922–26. At Stanford since 1926.

Hollands, Sarah Truair (1234) 1143 Fulton, P-p (PA 4969)
Medical Clerk, Student Health Service

A.B., Mt. Holyoke, 1903. At Stanford since 1928.

†Holman, Emile Frederic (1234) 112 Walnut, SF-sf (Walnut 4849)
Professor of Surgery

A.B., Stanford, 1911; B.A., Oxford, 1916; M.D., Johns Hopkins, 1918. Casualty House Surgeon, Radcliffe Infirmary, Oxford, 1916–17; Resident Medical Officer, Children's Hospital, Baltimore, 1918–19; Research Fellow, Hunterian Laboratory of Experimental Surgery, 1918–19; Assistant Resident Surgeon, Johns Hopkins Hospital, 1919–21, Resident Surgeon, 1921–23; Instructor in Surgery, Johns Hopkins Medical School, 1920–23; Resident Surgeon, Peter Bent Brigham Hospital, Boston, 1923–24; Austin Teaching Fellow, Harvard Medical School, 1923–24; Assistant Professor of Surgery, Western Reserve University Medical School, 1924–25; Attending Surgeon, Lakeside Hospital, Cleveland, 1924–25. At Stanford since 1925.

†Holsti, Rudolf (4) 205 Branner (PA 3121)
Acting Professor of Political Science

A.M., University of Helsinki (Finland), 1909, Ph.D., 1913. Lecturer in Sociology, Helsinki, 1914–22; Member of Parliament, 1913–18, 1922–23; Diplomatic Representative, London, 1917–19; Foreign Minister, 1919–22; Envoy Extraordinary and Minister Plenipotentiary, Estonia and Latvia, 1923–27, Switzerland, 1927–30; Permanent Delegate to the League of Nations, 1927–30.

†Hooker, Grover Cleveland (1234) 1120 Parkinson, P-p (PA 8556)
Acting Assistant Professor of Education

B.E., Mississippi State Teachers College, 1915; A.B., University of Colorado, 1923, A.M., 1924. Superintendent of Schools, Mississippi, 1915–21; Instructor, Mississippi State Teachers College, Summer Sessions, 1916–20; Superintendent of Schools, Arvada (Colo.), 1924–26; Extension Faculty, University of Colorado and Colorado State Teachers College, 1924–26; Assistant Superintendent of Schools, Jackson (Miss.), 1926–27; Director of Practice Teaching, Millsaps College, 1926–27, Professor of Education and Psychology, 1927–29.

†Hoover, Theodore Jesse (123) 627 Salvatierra* (PA 4400)
Professor of Mining and Metallurgy, and Dean of the School of Engineering

A.B., Stanford, 1901. Assayer, Superintendent, Manager, Consulting Engineer, Managing Director, Director, and President of many mining companies in America, Europe, Asia, Africa, and Australia, 1901–19. At Stanford since 1919.

†Hopkins, William Stephen (23) 549 Stanford, P-55 (PA 21550)
Instructor in Citizenship

B.S., Oregon, 1925, A.M., 1928. Graduate student, University of California, 1928–29. At Stanford since 1930.

†Hosford, George Newton (123) 31 Shore View, SF-sf (Evergreen 8462)
Clinical Instructor in Surgery (Ophthalmology)

A.B., California, 1918, M.D., 1923. Assistant in Surgery (Ophthalmology), University of California, 1923–26, Instructor, 1926–29. At Stanford since 1929.

†Hotchkiss, Willard Eugene (1234) 450 El Escarpado (PA 6236)
Dean of Graduate School of Business

Ph.B., Cornell, 1897, A.M., 1903, Ph.D., 1905; LL.D., Northwestern, 1927. Instructor in Political Science, University of Pennsylvania, 1904–5; Assistant Professor of Economics, Northwestern University, 1905–7, Associate Professor, 1907–9, Professor, 1909–17, 1921–25, Dean, School of Commerce, 1908–17; Professor of Economics and Director of Business Education, University of Minnesota, 1917–19; Acting Professor of Political Science, Stanford University, 1915–16, University of California, Summer Session, 1916; War Labor Counselor, Inland Empire Logging Camps, 1917–18; Secretary, Shipbuilding Labor Adjustment Board, 1918–19; Secretary, President's Industrial Conference, 1920; Executive Director, National Industrial Federation of Clothing Manufacturers, 1920–25; Educational Adviser, Institute of American Meat Packers, 1923; Research Staff, U.S. Coal Commission, 1923. At Stanford since 1925.

†Hotelling, Harold (234) 586 Foothill Road* (PA 21648)
Associate Professor of Mathematics

A.B., University of Washington, 1919, M.S., 1921; Ph.D., Princeton, 1924. University Scholar, University of Chicago, Summer Quarter, 1920; Assistant in Mathematics, University of Washington, 1920–21; J.S.K. Fellow in Mathematics, Princeton University, 1921–22, Instructor, 1922–24; Junior Research Associate, Food Research Institute, Stanford, 1924–25, Research Associate, 1925–27. At Stanford since 1924.

†Houston, Percy Hazen (4) 6 Stanford Union (PA 3121)
Acting Associate Professor of English

A.B., Williams, 1903, A.M., 1904; A.M., Harvard, 1905, Ph.D., 1910. Parker Travelling Fellow, Harvard, 1910–11; Instructor in English, Texas, 1912–15; Professor of English, Acadia University, 1915–16; Instructor in English, U.S. Naval Academy, 1916–21, Assistant Professor, 1921–22; Assistant Professor, University of California at Los Angeles, 1922–28; Associate Professor, Occidental College, since 1928.

†Houston, William Vermillion (3) Menlo Heights* (PA 3782)
Lecturer in Physics

A.B., B.S., Ohio State, 1920; M.S., Chicago, 1922; Ph.D., Ohio State, 1925. Instructor in Physics, Ohio State, 1922–25; National Research Council Fellow in Physics, California Institute of Technology, 1925–27; Guggenheim Memorial Foundation Fellow, Europe, 1927–28; Assistant Professor of Physics, California Institute of Technology, since 1928.

†Howard, Nelson J. (1234) 2001 Pierce, SF-sf (West 7591)
Instructor in Surgery

A.B., Johns Hopkins, 1921, M.D., 1925. Surgical House Officer, Johns Hopkins Hospital, 1925–26; Assistant Resident Surgeon, Lane Hospital, 1926–27, Resident Surgeon, 1927–29. At Stanford since 1926.

†Howe, Ralph Denny (23) 140 Iris, Redwood City* (RC 1446M)
Examining Physician, Men Students' Health Service

A.B., Stanford, 1925, M.D., 1929. Interne, Highland Hospital, Oakland, 1928–29. At Stanford since 1930.

Howell, Stanley (4) Stanford University*
Acting Assistant Professor of Law

A.B., Stanford, 1922, J.D., 1927. In practice of Law, Los Angeles, 1927–28; Assistant Professor of Law, University of Southern California, since 1928.

†Huggins, Maurice Loyal (123) 600 Foothill Road (PA 3969)
Assistant Professor of Chemistry

A.B., B.S., California, 1919, M.S., 1920, Ph.D., 1922. Assistant in Chemistry, California, 1919–20, University Fellow in Chemistry, 1920–21, du Pont Fellow, 1921–22; National Research Fellow in Chemistry, Harvard, 1922–23; California Institute of Technology, 1923–25. At Stanford since 1925.

†Hulme, Edward Maslin (1234) 638 Channing, P-p (PA 5015)
Professor of History

A.B., Stanford, 1897; A.M., Cornell, 1902. University Scholar, Harvard University, 1900–1901; Cornell Travelling Scholar at Collège de Sorbonne, 1902; Student in Europe, 1919–20, 1928; Instructor in Literature and History, High School, Portland (Ore.), 1897–1900; Assistant Professor of History, University of Idaho, 1902–5, Associate Professor, 1905–6, Professor, 1906–21, Dean of College of Letters and Science, 1917–21; Acting Professor of European History, Stanford, Winter Quarter, 1918; Professor of European History, University of California, Summer Session, 1918, University of Chicago, 1919, University of Oregon, Summer Session, 1925, 1926, University of Utah, Summer Session, 1929. At Stanford since 1921.

†Hunt, Ernest Paul (123) 127 Harriet, P-p (PA 4449)
Director of Basketball

A.B., Indiana, 1913. Assistant in Physical Education, Indiana University, 1910–13; Director of Physical Education, Linton (Ind.), 1913–14, Monte Vista (Colo.), 1914–16; Supervisor of Physical Education, Waco (Tex.) Public Schools, 1916–18, Berkeley High School, 1918–21. At Stanford since 1922.

†Hurwitz, Samuel H. (123) 2659 Filbert, SF-sf (Walnut 4422)
Associate Clinical Professor of Medicine

A.B., Harvard, 1907, A.M., 1908; M.D., Johns Hopkins, 1912. Medical House Officer, Johns Hopkins Hospital, 1912–13; Surgical House Officer, Peter Bent Brigham Hospital, Boston, 1913–15; Instructor in Research Medicine, Hooper Foundation for Medical Research, University of California, 1915–17; Assistant Clinical Professor of Medicine, University of California Medical School, 1917–26; Chief, Medical Department, Mount Zion Hospital, San Francisco, 1918–28. At Stanford since 1926.

Huskey, Anne K. (Mrs.) (1234) 1344 Emerson, P* (PA 21886)
Secretary, Civil Engineering

At Stanford since 1916.

Huston, Margaret Davidson (Mrs.) (1234) 575 Salvatierra* (PA 6417)
Secretary, Committee on Scholarship

Ph.B., University of Chicago, 1903. At Stanford since 1922.

†Ichihashi, Yamato (23) 523 Salvatierra (PA 3647)
Associate Professor of Japanese History and Government

A.B., Stanford, 1907, A.M., 1908; Ph.D., Harvard, 1914. Assistant in Economics, Stanford, 1908–10; Special Agent for U.S. Immigration Commission, 1908–10; Graduate Student, Harvard University, 1910–12, Henry Bromfield Roger Memorial Fellow in Sociology, 1911–12; Adviser to Government Delegates of Japan, First International Labor Conference, Washington (D.C.), 1919; Confidential Secretary to the Japanese Senior Delegate, Washington Conference, 1921–22. At Stanford 1908–10, and since 1913.

†Inman, Thomas George (123) 4547 California, SF-sf (Skyline 7036)
Associate Clinical Professor of Medicine (Neurology)

Ph.G., California College of Pharmacy, 1892; M.D., Cooper Medical College, 1894. Assistant Demonstrator of Anatomy, Cooper Medical College, 1895–1900; Instructor in Applied Anatomy, 1900–1911; Assistant Surgeon, St. Luke's Hospital, San Francisco, 1906–13; Neurological Institute, Frankfurt-am-Main, 1913, Berlin, Paris, 1914; Visiting Neurologist, St. Luke's Hospital, San Francisco, 1915–21, and since 1924; Lieutenant, U.S.N.R.F., December 1917 to February 1919. At Stanford since 1915.

IRWIN, THOMAS GEORGE (123) Chestnut, M-*1054* (PA 7507)
Instructor in Journalism

A.B., Stanford, 1930. At Stanford since 1928.

†JACKSON, JACOB HUGH (123) 445 El Escarpado-*2428* (PA 3636)
Professor of Accounting (Graduate School of Business)

A.B., Simpson, 1912; M.B.A., Harvard, 1920, LL.D., Simpson, 1930; C.P.A. (Wisconsin) 1919, (Massachusetts) 1920, (California) 1927. Instructor in Bookkeeping, Davenport (Ia.), and St. Louis (Mo.), High Schools, 1913–16; Assistant Professor of Commerce, University of Oregon, 1916–17; Travelling Fellow, American University, 1917–18; Assistant Professor of Accounting, University of Minnesota, 1918–19; Assistant Professor of Accounting, Graduate School of Business Administration, Harvard University, 1920–21, Professor of Accounting, 1923–27; Lecturer in Auditing, New York University, 1922–23, University of Chicago, Summer Quarter, 1923; Associated with Price, Waterhouse & Co., New York and Boston, 1921–26, San Francisco, since 1927. At Stanford since 1926.

†JACOBSEN, LYDIK SIEGUMFELDT (123) 745 Stanford, M-*1058* (PA 6673)
Assistant Professor of Mechanical Engineering

A.B., Stanford, 1921, Ph.D., 1927. Engineering Research with Westinghouse Electric and Manufacturing Company, East Pittsburgh (Pa.), 1921–24. At Stanford since 1924.

JALLADE, ADÈLE (4) 646 Alvarado
Acting Instructor in French

Diplôme d'études secondaires, Reims (France), 1911; A.B., University of Southern California, 1925, A.M., 1928. Teacher of French, Surbiton School for Girls, 1913–14; Instructor in French, University of Southern California, since 1924.

†JOHNSON, CHARLES CHRISTIAN (123) 2841 Sacramento, SF-sf
Instructor in Pharmacology [(Fillmore 7359)

A.B., Stanford, 1924, M.D., 1928. Assistant in Instruction, Pharmacology, Stanford, 1927–28. At Stanford since 1927.

†JOHNSTON, OLIVER MARTIN (123) 528 Alvarado-*1132* (PA 5986)
Professor of Romanic Languages

A.B., Mississippi College, 1890, A.M., 1892; Ph.D., Johns Hopkins, 1896. Principal, Preparatory Department, Mississippi College, 1890–91, Professor of English, 1891–93; Fellow in Johns Hopkins University, 1895–96; Lecturer in French Philology, Bryn Mawr College, 1896–97; Secretary, Pacific Coast Philological Association, 1909–13, President, 1917; Professor of French, University of California, Summer Session, 1919; Professor of Italian, University of Chicago, Summer Quarter, 1922; Professor of French, University of Washington, Summer Quarter (First Term), 1924, University of Colorado, Summer Quarter (First Term), 1926; President, Modern Language Association of Northern and Central California, 1926–27. At Stanford since 1897.

†JONES, ELIOT (123) 611 Salvatierra-*2575* (PA 8555)
Professor of Economics

A.B., Vanderbilt, 1906; A.M., Harvard, 1908, Ph.D., 1913. Instructor in Economics, Harvard University, 1912–13, University of Pennsylvania, 1913–14; Associate Professor of Economics, Iowa State University, 1914–16; Professor of Economics, University of Texas, 1916–17; Federal Trade Commission, 1917; War Industries Board, 1918; Lecturer in Economics, University of California, Summer Sessions, 1920, 1921, 1924; McKinley Professor of Public Utilities, University of Illinois, 1924–25; Lecturer in Economics, University of Chicago, Summer Quarter, 1925. At Stanford since 1917.

KATZ, LOUISE WALDMAN (1234) 513 Salvatierra-*1043* (PA 8953)
Cataloguer, Hoover War Library

B.S., Cornell, 1900. Graduate work in History, Cornell University, 1900–1901; Student, New York State Library School, Albany (N.Y.), 1901–3; Cataloguer, University of California, 1903–11; Special Cataloguer, University of Illinois, 1913–14; Catalogue Reviser, University of Minnesota, 1914–16; Cataloguer, Lane Medical

Library, 1917–20; Catalogue Reviser and Classifier, University of Minnesota, 1920–21. At Stanford 1916–17, and since 1921.

†KAY, WILLARD E. (123) 114 Fifteenth Ave., SF-sf (Evergreen 8212)
Clinical Instructor in Medicine

A.B., Stanford, 1912, A.M. (in Medicine), 1915, M.D., 1916. Junior and Senior Interneships, Lane Hospital, 1916–18; U.S.A. Medical Corps (Base and General Hospitals), 1918–20; U.S. Public Health Service (P.A. Surgeon), 1920–22. At Stanford 1913–14, and since 1923.

†KELLEY, TRUMAN LEE (234) 541 San Juan* (PA 4226)
Professor of Education and Psychology

A.B., Illinois, 1909, A.M., 1911; Ph.D., Columbia, 1914. Consulting Psychologist, Culver Military Academy, 1913–14; Adjunct Professor of Educational Psychology, University of Texas, 1914–17; Assistant Professor of Education, Teachers College, Columbia University, 1917–21; engaged in Psychological and Statistical Work for Surgeon General's Office, Adjutant General's Office, and for Committee on Education and Special Training, 1917–18; Chief Statistician, Elementary School Intelligence Examination Board of National Research Council, Summer, 1918; Psychologist for Commission for the Study of the Social Studies in the Schools, American Historical Association, since 1929. At Stanford since 1921.

†KELLY, THOMAS HENSHAW (123) 2835 Divisadero, SF-sf (Walnut 3434)
Clinical Instructor in Medicine

M.D., University of Cincinnati, 1914. Interne, Cincinnati General Hospital, 1914–15; Instructor in Medicine (full-time), University of Cincinnati, 1915–19; Medical Director, St. Francis Hospital, San Francisco, 1920; First Lieutenant, Captain, Major, M.C., U.S.A., 1917–19. At Stanford since 1921.

†KENNEDY, ARTHUR GARFIELD (123) 435 Coleridge, P-1706 (PA 8625)
Professor of English Philology

A.B., Doane College, 1902; A.M., Nebraska, 1905; Ph.D., Stanford, 1914. Teacher, Chadron (Neb.) Academy, 1902–4, Norfolk (Neb.) High School, 1905–8; Instructor in German and English, Spearfish (S.D.) State Normal School, 1908–12. At Stanford since 1914.

†KENNEY, WILLIAM (123) 1379 Sixth Ave., SF-sf (Montrose 1310)
Clinical Instructor in Medicine

M.D., California, 1905. Resident Physician, St. Luke's Branch Hospital, 1906–8; Resident Physician, Relief Home, 1908 14; Assistant in Medicine, Stanford Medical School, 1914–16, and since 1917. At Stanford since 1914.

†KENT, ARTHUR HAROLD (4) 744 Guinda, P* (PA 21183)
Acting Associate Professor of Law

A.B., University of Southern California, 1917; J.D., Stanford, 1925. Instructor in Psychology, University of Southern California, 1916–17; Acting Assistant Professor of Law, Stanford, Summer Quarter, 1925; Assistant Professor of Law, University of Oregon, 1925–26; Acting Professor of Law, University of Michigan, Summer, 1926; Assistant Professor of Law, University of Cincinnati, 1926–27; Acting Professor of Law, Columbia University, Summer, 1927; Associate Professor of Law, University of Chicago, since 1927.

†KERR, PAUL FRANCIS (4) Ventura-v
Acting Assistant Professor of Geology

B.S., Occidental, 1919; Ph.D., Stanford, 1923. Acting Instructor in Geology, Stanford, Autumn Quarter, 1923, Acting Assistant Professor, Summer Quarters, 1926–29; Instructor in Mineralogy, Columbia University, 1924 26, Assistant Professor, since 1926.

†KINDY, WARD B. (123) 566 Everett, P-p (PA 8506)
Assistant Professor of Electrical Engineering

B.E.E., Ohio State University, 1916, E.E., 1929. Electrical Inspector, U.S. Army Signal Corps, 1916–17; Aërial Gunnery Instructor, U.S. Naval Air Station, Key West, 1918; Instructor in Electrical Engineering, Iowa State College, 1920–21; Industrial Research and Development, 1928–29. At Stanford since 1921.

†KINGSTON, JOHN JOSEPH (123) 231 Thirty-second Ave., SF-sf
Assistant Clinical Professor of Pediatrics [(Evergreen 5070)

M.D., California, 1921. Interne, University Hospital, 1920–21; Assistant in Pediatrics, University Hospital, 1921–22. At Stanford since 1923.

†KIRKWOOD, MARION RICE (123) 249 Lowell, P* (PA 21159)
Professor of Law, and Dean of the School of Law

A.B., Stanford, 1909, J.D., 1911; LL.D., University of Southern California, 1926. Assistant Professor of Law, University of Oklahoma, 1911–12; Acting Professor of Law, Cornell, Summer Session, 1927. At Stanford since 1912.

†VON KLENZE, CAMILLO (4) 671 Santa Ynez (PA 3397)
Acting Professor of German

A.B., Harvard, 1886, Ph.D., Marburg, 1890. Instructor in Romance Languages, Cornell University, 1890 91, Instructor in German, 1891–93; Instructor in German, University of Chicago, 1893–96, Assistant Professor of the German Language and Literature, 1896–1901; Associate Professor of the German Language and Literature, Brown University, 1906–16; Professor of the German Language and Literature, College of the City of New York, 1916–27; Honorary Professor of American Literature, University of Munich.

†KLÜVER, HEINRICH (4) 215 Branner-*1185* (PA 3121)
Acting Associate Professor of Psychology

Ph.D., Stanford, 1924. Instructor in Psychology, University of Minnesota, 1924–26; Social Science Research Fellow, Columbia University, 1926–28; Research Psychologist, Behavior Research Fund, Institute for Juvenile Research, Chicago, since 1928.

†KRAUSE, ALLEN KRAMER (123) Desert Sanatorium, Tucson, Ariz.
Clinical Professor of Medicine [(Tucson 2000)

A.B., Brown, 1901, A.M., 1902; M.D., Johns Hopkins, 1907. Assistant and Instructor in Pathology, Johns Hopkins, 1907–9; Associate Director, Saranac Laboratory, 1906–16; Associate Professor of Medicine, Johns Hopkins, 1916–29; Director, Kenneth Dows Research Laboratories, Johns Hopkins University and Hospital, 1922–29; Lecturer, Trudeau School of Tuberculosis, since 1916. At Stanford since 1929.

†KREUTZMANN, HENRY A. R. (123) 123 Alhambra, SF-sf (Walnut 2736)
Clinical Instructor in Surgery (Genito-Urinary)

M.D., University of Pennsylvania, 1916. Instructor in Physiology, Harvard Medical School, 1916–17; Surgical House Officer, Peter Bent Brigham Hospital, Boston, 1917–18; First Lieutenant, M.C., A.E.F., 1918–19; Urologist, N.W.P.P.R.R., San Francisco; Urologist, Chinese Hospital. At Stanford since 1928.

†LAMSON, DAVID (1234) Blossom Knoll, Los Altos-*3001* (LA 318)
Sales Manager, University Press

A.B., Stanford, 1925. At Stanford since 1925.

LANDIS, MAUDE (1234) 2340 Clay, SF-sf (West 8000)
Superintendent of Nurses, and Professor of Nursing

A.B., Kansas, 1897; Graduate, Scarritt Hospital Training School, 1900. Graduate Study, Presbyterian Hospital, Chicago, 1905; Graduate Study, Department of Nursing and Health, Columbia University, 1917; Superintendent of Hospitals and Training Schools, 1901–17; Member, Missouri State Board of Examination and Registration of Nurses, 1909–14; Educational Director, Lakeside Hospital Training School, Cleveland (Ohio), 1917–18; Director, Connecticut Training School for Nurses, in affiliation with Yale University Medical School, 1918–21. At Stanford since 1921.

†LANG, ALBERT RAY (4) Kingscote*
Acting Assistant Professor of Education

A.B., Nebraska Wesleyan University, 1909; A.M., University of Nebraska, 1912; Ph.D., Stanford, 1924. Principal, Elementary and High School, Waverly (Neb.), 1909–10; Principal, Converse County High School, Douglas (Wyo.), 1910–11; Superintendent of City Schools and Converse County High School, Douglas (Wyo.), 1912–13; Superintendent of the United States Government Schools, Panama Canal

Zone, 1913–22; Head, Department of Education, State Normal School, Cheney (Wash.), 1924–27; Director of the League College of the National League of Teachers Associations, and Professor of Education, University of Washington, Summer, 1927; Professor of Education, University of Hawaii, and Territorial Normal School, Honolulu, Summer, 1928, Sierra Summer School, Huntington Lake, Summer, 1929. Dean of School of Education, Fresno State College, since 1927.

LANGNECKER, HARRY LESLIE (1234) 747 Santa Ynez (PA 4917)
Associate Professor of Medicine (Physio-Therapy)

A.B., Stanford, 1901; M.D., Johns Hopkins, 1906. House Officer, Johns Hopkins Hospital, 1906-8; Orthopedic House Officer, Massachusetts General Hospital, 1908, Assistant in Orthopedic Out-Patient Department, 1909–10, Assistant Resident Physician, 1911–13, Assistant to Orthopedic Surgeon-in-Chief, 1913–15; Lieutenant, M.C., U.S.N.R.F., April 1917 to March 1919. At Stanford since 1915.

†LANZ, HENRY (123) 786 Melville, P-p (PA 7644)
Assistant Professor of Slavic Languages

Ph.D., Heidelberg, 1911. Student, Imperial University, Moscow, 1904–6, Heidelberg, 1906–11; Instructor-elect in Logic, Reform Gymnasium, and Lecturer in Aesthetics, Beethoven School of Music, Moscow, 1914. At Stanford since 1918.

LAPIERE, RICHARD T. (1234) 524 Oberlin, M-*2622*
Instructor in Economics

A.B., Stanford, 1926, A.M., 1927, Ph.D., 1930. Teaching Assistant in Economics, Stanford, 1928–29. At Stanford since 1928.

†DE LAUBENFELS, MAX WALKER (4) 1125 Sinex, Pacific Grove*
Acting Instructor in Zoölogy (Hopkins Marine Station)

A.B., Oberlin, 1916; A.M., Stanford, 1926, Ph.D., 1929. Instructor in Ecology, Oberlin College, 1927; Research Fellow, Carnegie Institution of Washington, 1928; Fellow in Zoölogy, Stanford, 1929; Instructor in Zoölogy, Pasadena Junior College, 1930.

LAYMAN, MARY H. (123) 2156 Pacific, SF-sf (Walnut 5255)
Associate Clinical Professor of Pediatrics

M.D., Ludwig-Maximilian University, Munich, 1913. Assistant, Medical and Pediatric Clinic, Munich, 1915–16; Assistant, Pediatric Clinic, Stanford Medical School, since 1917; Assistant Visiting Physician, Pediatrics, San Francisco Hospital, 1918–20. At Stanford since 1917.

†LEE, RUSSEL VAN ARSDALE (123) 440 Foothill Road (PA 4220)
Assistant Clinical Professor of Therapeutics

B.S., California, 1917; M.D., Stanford, 1920. Senior Interne in Medicine, Stanford, 1920–21; Visiting Physician, San Francisco Hospital, since 1921. At Stanford since 1921.

LEE, RUTH DORINDA TOLDERVEY (1234) 660 Salvatierra (PA 8477)
Secretary to Dr. Alsberg, Food Research Institute

A.B., Stanford, 1922. At Stanford since 1925.

†LEE, WILLIAM BELL (123) 4 Stanford Union-*1112* (PA 3121)
Acting Assistant Professor of Chemistry

B.Sc., London, 1912; B.A., B.Sc., Oxford, 1922, M.A., 1927; Ph.D., Bristol, 1927. Science Teacher, Dollar Academy (N.B.), 1913–14; Chemist and Assistant Process Manager, Brunner Mond & Co., 1915–19; Research Chemist, British Dyes, Ltd., 1919; Lecturer in Physics, Birmingham Technical College, 1920; Research Chemist, Oxford University, 1920–23; Instructor in Chemistry, Cirencester, G.S., 1924; Research Investigator, British Adhesives Research Committee, Bristol University, 1925–27.

†LEIGHTON, PHILIP ALBERT (123) 455 Cornell, M* (PA 3260)
Assistant Professor of Chemistry

A.B., Pomona College, 1920, A.M., 1923; A.M., Harvard, 1925, Ph.D., 1927. Instructor in Chemistry, Harvard, 1926–27; Sheldon Travelling Fellow from Harvard, 1927–28. At Stanford since 1928.

†Lemos, Pedro Joseph (1234) 460 Churchill, P-*L* (PA 4893)
Director of the Museum and Art Gallery

Assistant Professor of Etching and Lettering, University of California, 1910–11, Professor of Design and Applied Arts, 1911–12; Director of San Francisco Institute of Art, 1912–17; Exhibitor, Pennsylvania Academy of Fine Arts, Carnegie Institute, Pittsburgh, Brooklyn Museum of Fine Arts, Chicago Art Institute, New York Galleries, Panama-Pacific International Exposition; editor of the *School Arts Magazine*. At Stanford since 1917.

†Lesley, Everett Parker (123) 582 Alvarado* (PA 21528)
Professor of Mechanical Engineering

A.B., Stanford, 1897; M.M.E., Cornell, 1905. Apprentice and Foreman in Union Iron Works, San Francisco, 1897–1903; Assistant Inspector to Naval Constructor, 1903–4; Draftsman at U.S. Experimental Model Basin, Washington (D.C.), 1905–7. At Stanford since 1907.

†Lewis, John Kent (1234) 69 Santa Paula, SF-sf (Lockhaven 2115)
Assistant Professor of Medicine

A.B., Stanford, 1918, M.D., 1922. Junior Interne, Lane Hospital, 1921–22; Resident in Medicine, Lane Hospital, 1923–25; Fellow in Medicine, Johns Hopkins, 1927–28. At Stanford since 1923.

Lewis, Margaret Reed (Mrs.) (4) 536 Alvarado*
Lecturer in Bacteriology and Experimental Pathology

A.B., Goucher College, 1901. Assistant in Zoölogy, Columbia, 1903–6; Assistant in Zoölogy, Barnard, 1903–6, Instructor, 1906–10; Lecturer, Anatomy and Physiology, New York Medical College for Women, 1904–5; Fellow, Bryn Mawr, 1908–9; Instructor, Training School for Nurses, Hopkins Hospital, 1910–11; Collaborator, Carnegie Institution, Johns Hopkins Medical School, 1915–27, Research Associate, since 1927.

†Liggett, James Bennett (123) 760 Waverley, P-p (PA 7340)
Teaching Specialist in Foundry Practice

Apprentice and Foundry Moulder, Falls Rivet and Machine Co., Cuyahoga Falls (Ohio), 1883–88, Webster, Camp & Lane, Akron (Ohio), 1888–93, Bowler & Co., Cleveland (Ohio), 1893–98, Cleveland Steel Casting Co., 1898–99; Foreman, Born Steel Range Co., Cleveland (Ohio), 1899–1902, Westinghouse Electric Co., Cleveland (Ohio), 1902. At Stanford since 1902.

†Liston, Edward (3)' 261 Hamilton, P-p (PA 7139)
Examining Physician, Men Students' Health Service

M.D., Royal College of Physicians and Surgeons (England), 1922.

†Long, Royce Reed (1234) 583 Salvatierra (PA 4548)
Professor of Physical Education and Hygiene

A.B., Stanford, 1908. Assistant in Physical Education, Stanford, 1902–4; Director of Gymnasium and Track Coach, Vanderbilt University, 1904–6; Instructor and Assistant Professor of Hygiene, Stanford, 1906–14; Instructor, University of California, Summer Sessions, 1912, 1913, 1914; Professor of Physical Education and Hygiene, Colorado State Teachers College, 1914–16, 1919–27; Graduate Student, Johns Hopkins University, 1916–17; First Lieutenant and Captain, S.C., U.S.A., 1917–19; Professor of Health Education, Colorado State Teachers College, on leave, 1927–29. At Stanford since 1927.

Longyear, Hilda (4) 424 Seneca, P-p (PA 3961)
Assistant Director (Stanford Union)

B.S., Cornell University, 1926. At Stanford 1926–29 and since 1930.

†Lovell, Howell (123) 865 Sunnyhills, Oakland-o (Holiday 9487)
Lecturer in Legal Medicine

Member of the San Francisco Bar.

†Luck, James Murray (123) Park, Ravenswood* (PA 21867)
Assistant Professor of Biochemistry

A.B., University of Toronto, 1922; Ph.D., Cambridge University, 1925. Student, Royal Commission for the Exhibition of 1851, 1922–25; Demonstrator in Biochemistry, University of Toronto, 1925–26. At Stanford since 1926.

†Luke, Ittai Albert (123) 1023 Emerson, P* (PA 3236)
Associate Professor of Military Science and Tactics

A.B., University of Kansas, 1914. Magnetic Observer, Department of Terrestrial Magnetism, Carnegie Institution of Washington, 1914–16; Graduate Student and Assistant in Physics, Stanford, 1917; Entered U.S. Army, 1917; Captain, Ordnance Department. At Stanford since 1929.

†Lundquist, Dell Theodore (1234) 2295 Emerson, P* (PA 5326)
Assistant Medical Adviser of Men

A.B., Stanford, 1922, M.D., 1927. Senior Interne and House Officer in Surgery, Lane and Stanford University Hospitals, 1927–28. At Stanford since 1927.

Luther, Chester Francis (123) 6 Stanford Union-*2714* (PA 3121)
Instructor in Mathematics

A.B., Stanford, 1928, A.M., 1929. At Stanford since 1928.

†Lutz, Ralph Haswell (1234) 344 Serra-*67* (PA 4535)
Professor of History, and Chairman of Directors, Hoover War Library

A.B., Stanford, 1906; LL.B., Washington, 1907; Ph.D., Heidelberg, 1910. Student, Universities of California, Summer 1906, Bonn and Heidelberg, 1907–10, Berlin, Summer, 1913; Instructor in History, University of Washington, 1911–16, Assistant Professor, 1916–20; Lecturer in European History, Stanford University, 1915–16. At Stanford, 1915–16, and since 1920.

†Lyman, George Dunlap (123) 3673 Jackson, SF-sf (Bayview 3570)
Lecturer in Pediatrics

A.B., Stanford, 1905; M.D., Columbia University, College of Physicians and Surgeons, 1909. Interne, Bellevue Hospital, New York, 1911; Post Graduate Student, University of Munich, Von Pirquet Clinic (Vienna), and Externe, Waissen Haus, Berlin, 1912–14; Chief of Clinic, Department of Pediatrics, St. Luke's Hospital, San Francisco.

†Lyon, Leonard Saxton (123) 708 National City Bank Bldg. [Los Angeles-la (Faber 3901)
Lecturer in Law

A.B., Stanford, 1918.

†McBain, James William (123) 571 Foothill Road (PA 8334)
Professor of Chemistry

A.B., University of Toronto, 1903, A.M., 1904; Ph.D., Heidelberg, 1908; Hon. Sc.D., Brown University, 1923, University of Bristol, 1928. Fellow of the Institute of Chemistry; Lecturer in Physical Chemistry, University College, Bristol, England, 1906–19, Leverhulme Professor of Physical Chemistry, 1919–26; President, Association of University Teachers, Great Britain, 1922–23; Fellow of the Royal Society, 1923; President, Bristol University Alumni Association, 1923–26; Visiting Professor, University of California, 1926; Vice-President, Faraday Society, 1926–29; Associate Editor, *Journal of American Chemical Society,* and *Journal of Physical Chemistry.* At Stanford since 1927.

McBain, Mary Evelyn Laing (Mrs.) (123) 571 Foothill Road (PA 8334)
Research Associate, Chemistry

Sc.D., University of Bristol, 1922. Research Associate, University of Bristol, 1922–26; awarded Ellen K. Richards Prize in Chemistry; Assistant Professor of Chemistry, Stanford, 1927–29. At Stanford since 1927.

†McCabe, Edward Raynsford Warner (123) 587 Alvarado* (PA 3720)
Professor of Military Science and Tactics (Field Artillery)

Graduate, Infantry and Cavalry School, 1906, Mounted Service School, 1907, Field Artillery School (Advanced Course), 1924. Student, University of Virginia, September 1896 to January 1900; entered the Regular Army, 1900; Lieutenant Colonel, Field Artillery. At Stanford since 1927.

McClelland, John (1234) 1180 California, M-*1036* (PA 3754)
Instructor in English

A.B., Stanford, 1924, A.M., 1925. At Stanford since 1925.

McCracken, Isabel (123) 634 Arguello-*1545* (PA 4652)
Associate Professor of Zoölogy

A.B., Stanford, 1904, A.M., 1905, Ph.D., 1908. Student, Paris and London, 1913–14. At Stanford since 1904.

McCully, Leona Hadley (Mrs.) (4) 1035 Bryant, P-p (PA 21349)
Acting Assistant Professor of Education

A.B., Indiana University, 1905; A.M., Stanford, 1928. Teacher of History, Evansville (Ill.) High School, 1905–7; Instructor in Psychology, Chico State Teachers College, 1921–22; Counselor and Teacher of History, Palo Alto Union High School, since 1922; Acting Assistant Professor of Education, Stanford, Summer Quarters, 1926–29, Assistant in Instruction, Autumn Quarters, 1926–29.

†McDowell, John Ezra (1234) Los Altos-*131* (LA 56)
Academic Secretary, and Alumni Secretary

A.B., Stanford, 1900. At Stanford since 1900.

†McFarland, Frank Mace (123) 775 Santa Ynez (PA 6925)
Professor of Histology

Ph.B., De Pauw, 1889; A.M., Stanford, 1893; Ph.D., Würzburg, 1896. Professor of Biology and Geology, Olivet College, 1889–92; Student, Würzburg, Zürich, and Naples, 1894–96. At Stanford since 1892.

McGilvary, Evander Bradley (4) Kingscote* (PA 21287)
Acting Professor of Philosophy

A.B., Davidson, 1884; A.M., Princeton, 1888; Ph.D., California, 1897. Instructor, University of California, 1894–97, Assistant Professor, 1897–99; Sage Professor of Ethics, Cornell, 1899–1905; Professor of Philosophy, University of Wisconsin, since 1905; Acting Professor, Summer Sessions, University of Chicago, 1911, University of California at Los Angeles, 1927, Columbia, 1928, Howison Lecturer, University of California, 1927; Lecturer, Mills Foundation, California, First Semester, 1928–29.

†MacGinitie, George Eber (1234) 210 Granite, Pacific Grove*
Assistant Professor of Zoölogy, and Assistant to the Director, Hopkins Marine Station [(Monterey 1813)

A.B., Fresno State Teachers College, 1925; A.M., Stanford, 1928. Assistant Instructor in Biology, Fresno State Teachers College, 1925–27, Instructor, 1927–28. At Stanford since 1928.

[†McGregor, Richard Crittenden Manila, P.I.
Lecturer in Zoölogy (Ornithology)]

A.B., Stanford, 1898. Curator of Birds, Bureau of Science, Philippine Islands. Associate Editor of the Publications of Bureau of Science, Philippine Islands.

McKendry, Marion (1234) 657 Santa Ynez-*1265* (PA 8659)
Secretary, School of Law

At Stanford since 1915.

†McKenney, Arthur Carol (123) 2424 Larkin, SF-sf (Graystone 9255)
Clinical Instructor in Medicine

A.B., Stanford, 1922, M.D., 1925. House Officer in Medicine, San Francisco Hospital, 1925–26, Assistant Visiting Physician, since 1926; Consultant in Medicine to U.S. Veterans' Hospital, Palo Alto, since 1928. At Stanford since 1926.

†McKenzie, Roger Bain (123) 3835 Jackson, SF-sf (Skyline 3250)
Clinical Instructor in Medicine

A.B., California, 1919; M.D., Stanford, 1924. Senior Interne, Medicine, Lane Hospital, 1924–25; Assistant in Medicine, Stanford, 1926–29. At Stanford since 1926.

†McKinlay, Arthur Patch (4) 587 Alvarado* (PA 3768)
Acting Professor of Classical Literature

A.B., Oregon, 1893; A.M., Harvard, 1904, Ph.D., 1906. Acting Assistant Professor of Classical Languages, University of Idaho, 1906–7; Instructor in Latin, Portland

(Ore.) Public Schools, 1907–12; Acting Instructor in Greek and Latin, University of California, 1912–13, Summer Session, 1913; Chairman, Department of Languages, Lincoln High School, Portland (Ore.), 1914 19; Assistant Professor of Latin, University of California, Southern Branch, 1919–25, Summer Session, 1920; Acting Assistant Professor of Latin, University of Texas, 1923; Associate Professor of Latin, University of California at Los Angeles, 1926–28, Summer Session, 1927, Professor, since 1929.

McLEAN, PHILIP TAGGART (4) 330 Waverley, P-*1513*
Reference Librarian, Hoover War Library

A.B., Pomona, 1925. At Stanford since 1925.

†McMURPHY, JAMES IRA WILSON (1234) 144 Melville, P-p (PA 1159W)
Associate Professor of Botany

A.B., Stanford, 1908, A.M., 1909. Assistant in Botany, University of Wisconsin, 1912–13. At Stanford since 1908.

†McNAUGHT, HARVARD YOUNG (123) 2979 Lake, SF-sf (Evergreen 7330)
Associate Clinical Professor of Surgery (Otology, Rhinology, Laryngology)

M.D., C.M., Trinity University, 1897. Fellow by Examination, Trinity Medical College, 1897; Assistant, Ear, Nose, and Throat Clinic, Cooper Medical College, 1911–12. At Stanford since 1913.

†MacQUARRIE, THOMAS WILLIAM (4) 309 S. Eighth, San Jose-sj
Acting Professor of Education [(Columbia 693)

A.B., Stanford, 1922, A.M., 1923, Ph.D., 1924. Principal and Teacher in Elementary and Secondary Schools, 1900–1917; Captain, Infantry, U.S. Army, 1917–18, Major, 1918–19; Director of Vocational Education, Fourth Division, U.S. Army, 1920–21; Co-ordinator, U.S. Veterans' Bureau, Stanford, 1922–24; Professor of Education and Director of University College, University of Southern California, 1924–27; Acting Instructor in Education, Stanford, Summer Quarter, 1924, Acting Assistant Professor, Summer Quarter, 1928, Acting Professor, Summer Quarter, 1929; President, San Jose State Teachers College, since 1927.

MACY, C. WARD (4) 519 Tennyson, P* (PA 6297)
Acting Instructor in Economics

A.B., Grinnell, 1920; A.M., University of Iowa, 1923. University Scholar, Iowa, 1922–23; Royall Victor Fellow in Economics, Stanford, 1928–29; Instructor in Economics, Coe College, 1923–25, Assistant Professor, since 1925.

MADVIG, ELSBETH (MRS.) (1234) Hamilton Avenue Extension, P-*874*
Secretary, Geology [(PA 5425)

At Stanford since 1927.

MAHR, AUGUST CARL (124) 565 Salvatierra-*63* (PA 5506)
Associate Professor of German

Ph.D., Heidelberg, 1911. Oberlehrer-Examen, Karlsruhe, 1912; Instructor in German, Sheffield Scientific School, Yale University, 1912–14; Director of the Zentralstelle für Kulturelle Arbeiten in Rüstringen and Editor of *Die Tide*, 1918–21; Teacher of English, German, and History of Art, Bergschule Hochwaldhausen, 1921–23. At Stanford since 1924.

†MALONE, CARROLL BROWN (4) 229 Branner-*1245*
Acting Associate Professor of History

A.B., Western Reserve University, 1908; A.M., University of Michigan, 1908; A.M., Harvard, 1920; Ph.D., University of Illinois, 1928. Professor of History, Tsing Hua College, 1911–27; Professor of History, Denison University, 1924–25; Instructor, Ohio State University, Summer Quarter, 1925; Acting Associate Professor of History, Oberlin, 1928 29; Acting Associate Professor, Miami University, 1929-30.

†MALONEY, HENRY WILFRED (1234) 518 Governor's-*57* (PA 5913)
Director of Minor and Intramural Sports

Military Gymnastic School, Dublin (Ireland), 1899; Physical Instructor, British Army, 1899–1900; British War Service, South Africa, 1901–2; Gymnastic School,

Pasadena, 1904–8; Chairman, Executive Committee, University and Club (Soccer) Football League, since 1915; Captain and Athletic Officer, A.E.F., 1917–18; Track Coach and Trainer, U.S. Track Team, Inter-Allied Games, Paris, France, 1919; Trainer and Rugby Commissioner, Rugby Teams, Olympic Games, Antwerp, Belgium, 1920; President, California Rugby Union, since 1920; Western Representative, National (Soccer) Football Association, since 1922; Coach and Manager, Stanford's Australian Tennis Tour, Summer, 1924; Member, National A.A.U. Boxing Committee, 1925–27; President, Pacific Athletic Association of the A.A.U., 1925–27; President Collegiate (Soccer) Football League, since 1926; Third Vice-President, National A.A.U., since 1929. At Stanford since 1908.

†MANNING, WILLIAM ALBERT (123) 649 Alvarado (PA 8536)
Professor of Mathematics

A.B., Willamette University, 1900; A.M., Stanford, 1902, Ph.D., 1904. Student, University of Paris, 1904–5. At Stanford since 1900.

†MANWARING, WILFRED HAMILTON (1234) 364 Kingsley, P-*51* (PA 21228)
Professor of Bacteriology and Experimental Pathology

B.S., Michigan, 1895; M.D., Johns Hopkins, 1904. Fellow and Assistant in Pathology, University of Chicago, 1904–5; Associate Professor of Pathology and Bacteriology, Indiana University, 1905–7; Travelling Fellow, Rockefeller Institute, 1907–8, Wassermann's Laboratory, Berlin, 1907–8, Ehrlich's Laboratory, Frankfurt-am-Main, 1908–9, Physiological Institute, London, 1909–10; Assistant in Pathology, Rockefeller Institute, 1910–13; Lecturer in Functional Pathology, Washington University Medical School, 1920–21. At Stanford since 1913.

†MARKEE, JOSEPH ELDRIDGE (123) 750 Palo Alto, P* (PA 5059)
Instructor in Anatomy

S.B., University of Chicago, 1925, Ph.D., 1929. Douglas Smith Fellow, University of Chicago, 1928–29. At Stanford since 1929.

†MARRA, WALDO JOSEPH (23) DeLamar Acres, Belmont-b (Belmont 52)
Lecturer in Journalism

A.B., New York University, 1915, A.M., 1919. Member of Staff, Alexander Hamilton Institute, 1917–18; Fellow in Business English, School of Commerce, New York University, 1917–19; Instructor in English, New York University, 1918–19; Instructor in Economics, University of California, 1919–20, Fellow in History, 1920–21; Correspondence Director, Bank of Italy, N.T. and S.A., San Francisco, 1921–29; Instructor of Business English, University of California, Extension Division, since 1919; Lecturer in Business Correspondence, American Institute of Banking, since 1921, San Francisco Stock Exchange Institute, since 1927.

MARSHALL, HELEN (1234) 1476 Alvarado, Burlingame-b
Instructor in Psychology and Psychiatry [(Burlingame 4831R)

A.B., Lake Erie, 1913; A.M., Ohio State, 1918. Research Assistant, Commonwealth Fund, Department of Psychology, Stanford, 1921–23; Assistant in Psychology and Neuro-Psychiatry Clinic, 1923–26. At Stanford since 1921.

†MARTIN, ERNEST GALE (123) 770 Santa Ynez* (PA 4738)
Professor of Physiology

Ph.B., Hamline, 1897; Ph.D., Johns Hopkins, 1904. Assistant in Biology, Hamline University, 1896–97; Fellow in Physiology, Johns Hopkins University, 1902–3; Instructor in Physiology, Purdue University, 1904–6; Instructor in Physiology, Harvard University, 1906–10, Assistant Professor, 1910–16; Lecturer in Physiology, Simmons College, 1907–8, Sargent School of Physical Education, 1906–14; Assistant Professor of Physiology, Radcliffe College, 1914–16; Exchange Professor of Physiology, University of Toronto, Winter Quarter, 1927; Research Physiologist (temporary), U.S. Public Health Service, 1917–20; Member Sub-Committee on Industrial Fatigue, Advisory Commission to Council of National Defense, 1917; Captain, Sanitary Corps, U.S.A., 1918–19. At Stanford since 1916.

†MARTIN, ERNEST WHITNEY (123) 525 Lincoln, P-*143* (PA 4558)
Professor of Classical Literature

A.B., Chicago, 1900; A.M., Stanford, 1902, Ph.D., 1910. Instructor in Latin and Greek, Private School, Clarinda (Iowa), 1895–96, Principal of High School, 1896–

98; Student, University of Berlin and American School of Classical Studies, Rome, 1900–1901; Acting Professor of Latin and Greek, University of Nevada, 1908–9, Professor of Greek, 1909–10; Director, Stanford University Band, since 1911; Captain, U.S.A., Field Director, A.R.C., 4th Division, A.E.F., 1917–18; Major and Deputy Commissioner, A.R.C., Mission to Greece, 1919; Decorated with Cross of Officer of the Order of the Redeemer, by King Alexander, 1919; Awarded, Military Cross of Merit, 2nd Class, by Greek Government, 1919; Visiting Professor, Columbia University, Summer Session, 1929. At Stanford since 1901.

[†Martin, Percy Alvin 593 Salvatierra (PA 6837)
Professor of European History]

A.B., Stanford, 1902, A.M., 1903; A.M., Harvard, 1907, Ph.D., 1912. Student, University of Paris, 1903–4, Universities of Berlin and Leipzig, 1907–8; Fellow, Harvard University, 1908; Professor of History and French, Whittier College, 1904–5; Lecturer in Latin-American History, Harvard University, 1915; Lecturer in South American History and Institutions, University of Washington, Summer Session, 1916; Albert Shaw Lecturer on American Diplomatic History, Johns Hopkins University, 1922; Professor of History, University of Hawaii, Summer Session, 1928. At Stanford since 1908.

†Marx, Guido Hugo (123) 356 Lincoln, P-*74* (PA 5814)
Professor of Machine Design

M.E., Cornell, 1893. With Gleason Tool Co., Rochester (N.Y.), 1893–94; with Bement, Miles & Co., Philadelphia, 1894–95; New School for Social Research, 1920. At Stanford since 1895.

†Masters, Alfred Richard (1234) 1005 Parkinson, P-*3006* (PA 8673)
General Manager, Board of Athletic Control

A.B., Stanford, 1924. At Stanford since 1925.

†Maynard, Merlin T. R. (1234) 604 S. Fifteenth, San Jose-sj
Clinical Instructor in Medicine (Cutaneous Diseases) [(Ballard 7876)

A.B., Stanford, 1919; M.D., Washington University (St. Louis, Mo.), 1922. Interne, Lane Hospital, 1922–23; Diplomate of National Board of Examiners, 1923; Assistant Visiting Dermatologist, San Francisco Hospital, 1924–25, Visiting Dermatologist, 1925–28; Consultant, Dermatology, U.S. Veterans' Diagnostic Center, Palo Alto. At Stanford since 1924.

[†Mears, Eliot Grinnell 593 Gerona (PA 21224)
Professor of Geography and International Trade (Graduate School of Business)]

A.B., Harvard, 1910, M.B.A., 1912. Secretary and Instructor, Harvard Graduate School of Business Administration, 1912–16; Chief, Foreign Service Division, and later American Trade Commissioner in the Near East, United States Bureau of Foreign and Domestic Commerce, Commercial Attaché to American High Commission in Turkey, 1916–20; Economist, Harbord Military Mission to Armenia and Transcaucasia, 1919; Secretary, The Survey of Race Relations, since 1924; Round Table Leader, Institute of International Relations, 1926, 1927, 1928; Member, Honolulu Conference, Institute of Pacific Relations, 1927; Visiting Professor, Institut Universitaire de Hautes Études Internationales, Geneva, 1929–30; Visiting Carnegie Professor to Universities in Near East and Scotland, 1930. At Stanford since 1921.

[Meherin, J. Minton 76 Sea Cliff, SF-sf (Evergreen 0811)
Clinical Instructor in Surgery]

M.D., Harvard, 1922. Interne, San Francisco Hospital, 1922–23. At Stanford since 1923.

†Mehrtens, Henry George (1234) 2101 California, SF-sf (Fillmore 6196)
Professor of Medicine (Neuropsychiatry)

B.S., California, 1911; M.D., Stanford, 1913. Senior House Officer, Lane Hospital, 1914–15; Assistant in Medicine (Neurology), Stanford, 1915–16, 1916–17; House Physician, Lane Hospital, since 1915. At Stanford since 1915.

†Mensor, Merrill Coleman (123) 2224 Nineteenth Ave., SF-sf
Assistant Clinical Professor of Surgery [(Montrose 4213)
(Orthopedics)

M.D., California, 1923. Resident Surgeon, Shriners' Hospital for Crippled Children, San Francisco, 1923–24; Surgeon, San Francisco Emergency Service, 1924–26; Orthopedic Surgeon, Mary's Help Hospital, since 1924; Visiting Orthopedic Surgeon, Laguna Honda Home, since 1929. At Stanford since 1924.

Merriam, Katharine (1234) 206 Emerson, P-*936* (PA 6602)
Secretary to Dr. Davis, Food Research Institute

A.B., Mt. Holyoke, 1924. At Stanford since 1925.

Merrill, Maud Amanda (234) 708 Salvatierra (PA 21736)
Assistant Professor of Psychology

A.B., Oberlin, 1911; A.M., Stanford, 1920, Ph.D., 1923. At Stanford since 1920.

†Mestre, Harold (1234) 902 Colton, Monterey-Box 567, m (Monterey 1973)
Acting Assistant Professor of Biophysics (Jacques Loeb Laboratory)

A.B., California, 1923; Ph.D., Stanford, 1929. Teaching Fellow in Zoölogy, University of California, 1923–24, Assistant, 1924; Assistant Professor of Biology, Fresno State Teachers College, 1924–26, Associate Professor, 1926–27; University Fellow, Stanford, 1927–28.

†Meyer, Arthur William (123) 121 Waverley, P* (PA 6726)
Professor of Anatomy

B.S., Wisconsin, 1898; M.D., Johns Hopkins, 1905. Assistant and Instructor in Anatomy, Johns Hopkins University, 1905–7; Assistant Professor of Anatomy, University of Minnesota, 1907–8; Professor of Anatomy, Northwestern University, 1908–9; Research Associate, Carnegie Institution, 1917–18. At Stanford since 1909.

Meyrick, Geraldine (1234) 128 Kingsley, P* (PA 6223)
Secretary to Dean of Summer Quarter and to Secretary
of Stanford National Board

At Stanford since 1921.

Michelson, Lewis (1234) Huntington Apts., SF-sf (Franklin 5400)
Clinical Instructor in Obstetrics and Gynecology

M.D., Cooper Medical College, 1907. Student, Vienna, 1910–11; Special Worker, Brady Urological Institute, Johns Hopkins University, 1916–17; Instructor in Surgery (Genito-Urinary), Stanford, 1917–18; Director of Bureau of Social Hygiene, California State Board of Health, 1918–19. At Stanford since 1919.

[Miles, Bonita Kingscote-*1023* (PA 4366)
Cataloguer, Library]

A.B., Nevada, 1924. At Stanford since 1925.

Miles, Catharine Cox (Mrs.) (1234) 607 Gerona (PA 5759)
Research Associate, Psychology

A.B., Stanford, 1912, A.M., 1913, Ph.D., 1925. Assistant in Physical Training, Stanford, 1912–13; Student, Universities of Jena and Berlin, 1913–14; Assistant Professor of German, College of the Pacific, 1914–15, Professor, 1915–20, Director of Physical Education for Women, 1918–20; Instructor in German, Stanford, 1920–23, University Fellow, 1923–24; Director, California Bureau of Juvenile Research, Whittier State School, 1924–25; Psychologist, Central Mental Hygiene Clinic, Cincinnati, 1925–27; Assistant Attending Psychologist, Cincinnati General Hospital, 1925–27; Psychologist, Children's Hospital, Cincinnati, 1926–27; Consultant in Psychology, U.S. Veterans' Bureau Diagnostic Center No. 1, Cincinnati, 1926–27; Lecturer in Educational Psychology, University of Cincinnati, 1926–27. At Stanford 1912–13, 1920–23, and since 1927.

†Miles, Walter Richard (124) 607 Gerona (PA 5759)
Professor of Experimental Psychology

B.S., Pacific College, 1906; A.B., Earlham, 1908; A.M., Iowa, 1910, Ph.D., 1913. Instructor in Psychology and Education, Penn College, 1908–10; Scholar in Edu-

cation, University of Iowa, 1909–10, Fellow and Assistant in Psychology, 1910–12; Associate Professor of Psychology, Wesleyan University, 1913–14; Psychologist at Nutrition Laboratory of Carnegie Institution of Washington, Boston (Mass.), 1914–22; Lecturer in Psychology, University of California, First Semester, 1925–26; Colver Medical Lecturer, Los Angeles, 1928. At Stanford since 1922.

MILLIKEN, MARGARET FRANCES (123) Perry, Menlo Heights-*2653* (PA 8266)
Instructor in Economics

A.B., Vassar, 1922. At Stanford, 1923–26, and since 1927.

MIRRIELEES, EDITH RONALD (123) 534 Lasuen-*926* (PA 5959)
Associate Professor of English

A.B., Stanford, 1907. At Stanford since 1909.

†MITCHELL, JOHN PEARCE (1234) 235 Embarcadero, P* (PA 5714)
Registrar, and Professor of Chemistry

A.B., Stanford, 1903, A.M., 1904, Ph.D., 1909. Student, University of Leipzig, 1904–5. At Stanford, 1903–4, and since 1905.

MOORE, MYRTLE (1234) Menlo Heights* (PA 6042)
Secretary to the Registrar

Ph.B., University of Chicago, 1922. At Stanford since 1925.

†MORAUD, MARCEL (4) 552 Alvarado (PA 4653)
Acting Professor of French

Agrégé de l'Université de Paris, 1913. Lecturer in French, Edinburgh, 1908–10; Instructor in French, University of Minnesota, 1915–16; Instructor in French, Princeton, 1916–17; Member of the French High Commission, Washington, 1917–18; Lecturer in French, University of Toronto, 1918–19, Assistant Professor, 1919–20, Associate Professor, 1921–24; Professor of French and Head of Department of Romance Languages, Rice Institute, since 1924.

†MORENO, HALCOTT CADWALADER (123) 684 Mirada (PA 4436)
Professor of Engineering Mathematics

A.B., University of Georgia, 1893, A.M., 1894, B.L., 1896; Ph.D., Clark, 1900. Tutor in Mathematics, University of Georgia, 1893–97; Scholar and Fellow in Mathematics, Clark University, 1897–1900, Assistant in Mathematics, 1900–1901. At Stanford since 1901.

MORGAN, EDITH (MRS.) (123) 575 O'Farrell, SF-sf (Prospect 3765)
Nurse, Student Health Service

At Stanford since 1928.

†MORGAN, EDMUND MORRIS (4) 614 Alvarado (PA 5727)
Acting Professor of Law

A.B., Harvard, 1902, A.M., 1903, LL.B., 1905; A.M. (Hon.), Yale, 1919. Professor of Law, University of Minnesota, 1912–17; Professor of Law, Yale, 1917–25; Professor of Law, Harvard, since 1925; Visiting Professor of Law, Summer Sessions, Kansas, 1925, Yale, 1926, North Carolina, 1927, Texas, 1928.

†MORGAN, THEODORE HARDING (123) 243 Waverley, P-*2235* (PA 6250)
Assistant Professor of Electrical Engineering

A.B., Stanford, 1920, Engineer, 1929. Foreman, Foundation Company, Victoria (B.C.), 1917–19; Testing Engineer, Inspiration Consolidated Copper Company, Inspiration (Ariz.), 1920–21; Engineer, Great Western Power Company, San Francisco, 1921–22, and summers, 1923–26. At Stanford since 1922.

†MORRIS, LAIRD M. (123) 1900 Broadway, SF-sf (Walnut 3312)
Clinical Instructor in Medicine

M.D., California, 1916. Lieutenant, M.C., U.S.N., 1917–19; Assistant Resident Physician, Peter Bent Brigham Hospital, Boston, 1920; Assistant in Medicine, University of California Medical School, 1921–22, Instructor in Medicine, 1922–23. At Stanford since 1924.

†Morrison, Stanley (123) 663 Lowell, P* (PA 6360)
Professor of Law

A.B., Yale, 1915; LL.B., Harvard, 1919. Law Secretary to Justice Oliver Wendell Holmes, United States Supreme Court, Washington (D.C.), 1919–20; in practice of law with McCutcheon, Olney, Mannon, and Greene, San Francisco, 1920–23. At Stanford since 1924.

†Morrissey, Edmund J. (123) 3032 Divisadero, SF-sf (Fillmore 0284)
Clinical Instructor in Surgery

A.B., St. Ignatius, 1917; M.D., California, 1922. Assistant Resident Surgeon, University of California Hospital, 1922–23; Resident Surgeon, Ruptured and Crippled Hospital, New York, 1923–24; Resident, Neuro-Surgery, Memorial Hospital, Richmond (Va.), 1924–25; Instructor, Medical College of Virginia, 1924–25; Assistant in Instruction, Surgery, Stanford, 1926–28. At Stanford since 1926.

Morse, Helen Benn (1234) 535 Salvatierra-*1051* (PA 4617)
Cataloguer, Library

A.B., Wellesley, 1907; B.S., Simmons College Library School, 1919. Graduate Student, Radcliffe, 1908–9; Cataloguer, University of Minnesota Library, 1919–20, 1921–22, 1924–28, Radcliffe College Library, 1920–21, Brown University Library, 1923–24. At Stanford since 1929.

†Moser, Charles (123) 441 Foothill Road* (PA 21135)
Professor of Civil Engineering, and Secretary of the Faculty of the School of Engineering

C.E., Ohio Northern University, 1902; A.B., Stanford, 1908. At Stanford since 1908.

†Muller, Siemon William (124) 1145 Webster, P-*655*
Instructor in Geology

A.B., Oregon, 1927; A.M., Stanford, 1929, Ph.D., 1930. Assistant in Instruction, Geology, Stanford, 1927–29. At Stanford since 1927.

†Murray, Augustus Taber (4) 1019 Bryant, P-*2825* (PA 5801)
Professor of Classical Literature

A.B., Haverford, 1885; Ph.D., Johns Hopkins, 1890. Fellow in Johns Hopkins University, 1887–88; Professor of Greek, Earlham College, 1888–90; Student, Universities of Leipzig and Berlin, 1890–91; Professor of Greek, Colorado College, 1891–92; Federal Food Administrator for Northern Unit of Santa Clara County, California, 1918; Annual Professor in the American School of Classical Studies, Athens, 1922–23. At Stanford since 1892.

Murray, Katherine (1234) 1011 Fulton, P* (PA 7188)
Secretary, Psychology

At Stanford since 1918.

Murray, Margaret (1234) 1011 Fulton, P* (PA 7188)
Secretary to the Comptroller

At Stanford since 1916.

†Nagel, Gunther Willibald (1234) 481 Thirty-fifth Ave., SF-sf
Clinical Instructor in Surgery [(Evergreen 8755)

A.B., Stanford, 1917, M.D., 1921; M.Sc. (in Surgery), University of Minnesota, 1926. Senior Resident in Medicine, Stanford University Hospital, 1921–22; Fellow in The Association of Residents and Ex-Residents of The Mayo Clinic, since 1922; Resident Surgeon, St. Mary's Hospital, Rochester (Minn.), 1925–26; First Assistant to Dr. Judd, Rochester (Minn.), 1926–28. At Stanford since 1928.

Nagel, Laura Ingeborg (1234) 1248 Waverley, P*
Recorder, Registrar's Office

A.B., Stanford, 1904, A.M., 1905. At Stanford, 1908–9, and since 1919.

†Nelson, Roy F. (123) 650 Blair, Piedmont-p (Piedmont 5703)
Clinical Instructor in Surgery (Otology, Rhinology, Laryngology)

A.B., Knox, 1919; M.D., Stanford, 1924. Senior Interne, Lane and Stanford University Hospitals (Otolaryngology), 1924–25, Resident, 1925–26; Certificate, American Board of Otolaryngology, 1926; Staff Surgeon, Otolaryngology, Highland Hospital, Oakland; on Staff, Peralta Hospital; Consultant in Endoscopy, Baby Hospital, Oakland. At Stanford since 1924.

†Newell, Robert Reid (12) 50 Yerba Buena, SF-sf (Lockhaven 2647)
Associate Professor of Medicine (Radiology)

M.D., California, 1916. Assistant in Medicine, University of California Medical School, 1917. At Stanford since 1920.

Nicholls, Elizabeth G. (Mrs.) (123) 53 Palm, SF-sf (Evergreen 4252)
Clinical Instructor in Medicine

M.D., Johns Hopkins, 1923. At Stanford since 1929.

†Nichols, John Ralph (1) 251 Lincoln, P* (PA 2669)
Acting Instructor in Citizenship

B.S., Oregon State Agricultural College, 1922; A.M., Stanford, 1925. Commandant, Seale Military Academy, 1923; Principal, Grammar School, Cutler, 1923–24, Santa Cruz, 1925–26, Pittsburg, 1926–28.

†Niebel, Herbert Lee (123) 1455 Webster, P-p (PA 4227)
Assistant Medical Adviser of Men

A.B., Stanford, 1914, M.D., 1923. At Stanford since 1927.

†van Niel, Cornelis Bernardus (1234) Monte Verde, Carmel*
Acting Associate Professor of Microbiology [(Carmel 726)
(Jacques Loeb Laboratory)

Chem. Eng., Delft (Holland), 1923, D.Sc., 1927. Conservator, Laboratory for Microbiology, Delft, 1923–28.

†Nielson, Sigvald (123) 1612 California, M-*734* (PA 8312)
Acting Assistant Professor of Law

A.B., Alberta, 1922, LL.B., 1924; J.D., Stanford, 1929. Lecturer in Law, University of Alberta, 1925–26, Assistant Professor of Law, 1926–28.

†Niles, Alfred Salem (123) 827 Lincoln, P* (PA 21759)
Professor of Aëronautic Engineering

A.B., Johns Hopkins, 1915; B.S., Massachusetts Institute of Technology, 1917; B.S., Harvard, 1917. Assistant in Civil Engineering, Massachusetts Institute of Technology, 1917–18; Chief of Structures Branch, Airplane Section, Engineering Division, U.S. Army Air Service, 1921–27. At Stanford since 1927.

†Noller, Carl Robert (234) Delmonte, Los Altos*
Assistant Professor of Chemistry

B.S., Washington University, 1922, M.S., 1923; Ph.D., University of Illinois, 1926. Instructor in Chemistry, University of Illinois, Summer Session, 1926; Instructor in Chemistry, Northwestern University, 1926–27; Chemist, Chemical Plant Laboratory, Eastman Kodak Co., Rochester (N.Y.), 1927–28, Department of Synthetic Chemistry, 1928–29. At Stanford since 1929.

Nottelmann, Rudolph Hans (4) 207 Branner*
Acting Professor of Law

A.B., Monmouth, 1912; A.M., Illinois, 1913; LL.B., Yale, 1922. Professor of History, Tarkio College, 1913–18; Professor of History, Monmouth College, 1918–19; Law Practice, Minneapolis (Minn.), 1922–26; Professor of Law, University of Washington, since 1927.

Nye, Helena May (124) 281 Addison, P* (PA 21646)
Instructor in German

A.B., Stanford, 1905, A.M., 1908. At Stanford since 1921.

†Ogle, Marbury Bladen (2) 816 Waverley, P-*1211* (PA 5893)
Acting Professor of Classical Literature

A.B., Johns Hopkins, 1902, Ph.D., 1907. Fellow in Latin, Johns Hopkins, 1906–7; Assistant Professor of Latin, University of Vermont, 1907–9, Professor of Latin Language and Literature, 1909–25; Acting Professor of Latin, Columbia University, Summer Sessions, 1914, 1917, 1918, 1921, 1927, 1928; Professor of Classical Languages and Literature, Ohio State University, since 1925.

†Olsen, Louis S. (4) 321 Fulton-p (PA 6767)
Acting Instructor in Public Health

A.B., Stanford, 1914, Engineer, 1915. Health Officer, Palo Alto, since 1917.

†O'Neill, Arthur Aloysius (123) 756 Page, SF-sf (Hemlock 2361)
Assistant Clinical Professor of Medicine

M.D., Cooper Medical College, 1891. Assistant Surgeon, Cooper Medical College Clinic, 1893; Assistant in Diseases of the Skin, San Francisco Polyclinic, 1902–7; in charge of Isolation and Plague Hospitals, 1907–10, of Isolation Hospital, 1912–17; City Physician, San Francisco, since 1917; Surgeon, U.S.P.H. Reserve, Consultant, Communicable Diseases, 1919. At Stanford since 1913.

Ophüls, Louise (1234) 2156 Pacific, SF-sf (Walnut 5255)
Librarian, Lane Medical Library

At Stanford since 1910.

†Ophüls, William (123) 2398 Sacramento, SF-sf (Walnut 1741)
Dean of the School of Medicine and Professor of Pathology

M.D., University of Göttingen, 1895. Assistant at the Pathologic Institute at Göttingen, 1896–97; Professor of Pathology and Bacteriology, University of Missouri, 1897–98; Professor of Pathology and Bacteriology, Cooper Medical College, 1898–1912; Pathologist, Lane Hospital, since 1898; Instructor in Pathology, Training School for Military Officers, U.S.A., March to December 1918. At Stanford since 1909.

†Osborn, Clarence Gladden (123) 741 Columbia, M-m (PA 21889)
Instructor in Citizenship

A.B., Stanford, 1926, A.M., 1927. Acting Instructor in Citizenship, Stanford, 1927–28; Instructor in History, San Diego State Teachers College, 1928–29. At Stanford, 1927–28, and since 1929.

†Osborne, George Edward (1234) 669 Cabrillo* (PA 6266)
Professor of Law

A.B., California, 1916; LL.B., Harvard, 1919, S.J.D., 1920. Assistant Professor of Law, West Virginia University, 1920–21; Acting Assistant Professor of Law, Stanford University, Summer Quarter, 1921; Assistant Professor of Law, University of Minnesota, 1921–23; Acting Professor of Law, Columbia University, Summer Session, 1923, Chicago, Summer Quarter, 1927. At Stanford since 1923.

Ostroff, Robert Allison (123) 1007 Sutter, SF-sf (Franklin 5078)
Clinical Instructor in Surgery

A.B., Nevada, 1915; M.D., Stanford, 1919. Interne, San Francisco Hospital, 1917–18; Senior Interne in Surgery, Lane Hospital, 1918–19. At Stanford since 1923.

Owen, Lillian Caroline (1234) 553 Salvatierra* (PA 21360)
Secretary, Graduate School of Business

A.B., Stanford, 1920. Executive Assistant to Appointment Secretary, Stanford University, 1922–25. At Stanford since 1922.

†Owens, William Brownlee (1234) 593 Alvarado (PA 3642)
Professor of Law, and Faculty Athletic Representative, Pacific Coast Intercollegiate Athletic Conference

LL.B., Stanford, 1915. At Stanford, 1915–16, and since 1920.

†Palmateer, Theron Josiah (123) 1028 Cowper, P-p (PA 5459)
Teaching Specialist in Machine Shop Practice

Apprentice with Sibley & Ware, South Bend (Ind.); Journeyman Machinist, 1896–1905, with R. Hoe & Co., New York, Columbus Machine Works, Columbus (Ohio), Elms Engineering Works, Chicago, Western Gas Engine Works, Mishawaka (Ind.), Webster Iron Works, Bakersfield, R. S. Hunkins, San Jose. At Stanford since 1904.

Palmer, Caroline Bell (123) 2557 Clay, SF-sf (Walnut 5517)
Associate Clinical Professor of Surgery (Anesthetics)

M.D., Cooper Medical College, 1906. Chief Anesthetist, Lane Hospital, since 1909. At Stanford since 1916.

†Park, Charles V. (1234) 1080 Emerson, P-p (PA 3432)
Assistant Librarian

A.B., Stanford, 1909. Certificate, New York Public Library, Library School, 1915. At Stanford since 1909.

†Parks, George Sutton (123) 665 Alvarado (PA 6572)
Assistant Professor of Chemistry

B.S., Washington, 1915, M.S., 1916; Ph.D., California, 1919. Instructor in Chemistry, California Institute of Technology, 1919–20. At Stanford since 1920.

Parrott, James Clifford (123) 2201 Francisco, SF-sf (Fillmore 8474)
Assistant Clinical Professor of Pediatrics

M.D., Stanford, 1920. At Stanford since 1927.

†Parrott, Thomas Marc (4) 7 Stanford Union (PA 3121)
Acting Professor of English

A.B., Princeton, 1888, A.M., 1891; Ph.D., Leipzig, 1893. Principal, Preparatory Department, Miami University, 1888–90; English Fellow, Princeton, 1893–94; Instructor in English and German, Lawrenceville (N.J.) School, 1894–96; Assistant Professor of English, Princeton, 1896–1902, Professor since 1902.

†Patchett, Ulysses Arnold (123) 1854 Bryant, P* (PA 7598)
Instructor in Mechanical Engineering

B.S., University of California, 1925, M.S., 1926. Assistant in Mechanical Engineering, University of California, 1926–27; Automotive Research Engineer, with the Union Oil Company of California, Wilmington, 1929. At Stanford since 1927.

†Peirce, George James (12) 281 Embarcadero, P-*65* (PA 5856)
Professor of Botany and Plant Physiology

S.B., Harvard, 1890; A.M., and Ph.D., Leipzig, 1894. Assistant in Botany, Harvard University and Radcliffe College, 1890–92; Parker Fellow in Harvard University, studying in Bonn, Leipzig, and Munich, 1892–94; Assistant Professor of Botany, Indiana University, 1895–97; Acting Professor of Botany, University of Wisconsin, Second Semester, 1910–11. At Stanford since 1897.

†Pettigrew, Moses W. (123) 1060 High, P* (PA 8347)
Associate Professor of Military Science and Tactics (Field Artillery)

B.S. in C.E., University of Utah, 1929. Graduate, Field Artillery School, 1923. At Stanford since 1924.

†Pettit, Albert Victor (1234) 1169 Bay, SF-sf (Ordway 5554)
Assistant Clinical Professor of Obstetrics and Gynecology

A.B., Stanford, 1915, M.D., 1919. Senior Interne, Obstetrics and Gynecology, Lane Hospital, 1919–20, Resident, 1920–21, Chief of Women's Clinic, 1921–25; Assistant Visiting Obstetrician and Gynecologist, San Francisco Hospital, 1926–29, Acting Visiting Obstetrician and Gynecologist, since 1929. At Stanford since 1920.

†Pierson, Philip Hale (1234) 3481 Washington, SF-sf (Fillmore 4931)
Associate Clinical Professor of Medicine (Tuberculosis),
and Consultant in Tuberculosis, Department of Pediatrics

A.B., Yale, 1908; M.D., Harvard, 1913. House Officer, Massachusetts General Hospital, 1914–15. At Stanford since 1916.

†Pischel, Dohrmann Kaspar (123) 1815 California, SF-sf (Ordway 5698)
Clinical Instructor in Surgery (Ophthalmology)

A.B., California, 1918; M.D., Stanford, 1923. Assistant Visiting Otolaryngologist, San Francisco Hospital, 1923–24; Hospitant, University Eye Clinic, Vienna, 1924–26; Assistant Ophthalmologist, University of California, 1926–28. At Stanford since 1928.

Potter, Margaret (124) 15 Mesa, Piedmont-p (Humboldt 6397)
Cataloguer, Lane Medical Library

B.S., California, 1914. At Stanford since 1919.

Pouppirt, Pearl Sylva (123) 2051 Scott, SF-sf (Fillmore 3525)
Clinical Instructor in Medicine (Neuropsychiatry)

A.B., Stanford, 1921, M.D., 1926. Resident, Neuropsychiatry, Stanford University Hospital. At Stanford since 1927.

†Powers, Robert Allen (234) 2331 S. Court, P* (PA 5834)
Roentgenologist, School of Hygiene and Physical Education

M.D., Hahnemann Medical College of the Pacific, 1917. At Stanford since 1930.

†Proctor, William Martin (1234) 747 Dolores (PA 3223)
Professor of Education

A.B., Whitman, 1901; A.M., Stanford, 1916, Ph.D., 1919. Teacher of History and Civics, Cheney (Wash.) State Normal School, 1909–10; Professor of Education, Pacific University, Forest Grove (Ore.), 1911–15, Dean of Faculty, 1914–15; Lecturer, Harvard Summer Session, 1922; Lecturer in Secondary Education, Harvard University, 1923–24; Lecturer, Summer Sessions, Columbia University, 1924, University of Minnesota, 1925, University of Washington, 1927, University of Southern California, 1929. At Stanford since 1916.

†Proescher, Frederick (123) Agnew State Hospital, Agnew-a
Lecturer in Therapeutics [(Ballard 1728)

M.D., University of Basel, 1899. Assistant, Institut für experimentelle Therapie, Frankfort (Germany), 1900–1902; Chief Bacteriologist, Hoechst Farbenfabrik, 1903–4; Postgraduate work, Pathological Institutes of Berlin and Vienna, Pasteur Institute, Paris, 1903–4; Pathologist, Mercy Hospital, Pittsburgh, 1906–7; Pathologist, Allegheny Hospital, Pittsburgh, 1907–13; Physician-in-Chief to Pittsburgh City Hospital, 1913–14; Chief, Pathological Laboratory, and Captain, U.S.A., Camp Sherman, 1917–18; Pathologist, Agnew State Hospital, since 1922.

Putnam, Dorothy (1234) 625 Guinda, P* (PA 6225)
Secretary, School of Education

A.B., Stanford, 1916. Assistant in History, Stanford University, 1916–17. At Stanford since 1916.

Ragan, Frank Allison (123) California Tennis Club, SF-sf
Acting Instructor in Tennis

Director of Sports, Casa del Rey Hotel, Santa Cruz, Summer, 1927; Professional Tennis, California Tennis Club, San Francisco, 1927–29; Instructor in Tennis, Dominican College, 1927–29.

†Ralston, Jackson Harvey (1) 1055 Cowper, P-p (PA 3831)
Lecturer in Political Science

LL.B., Georgetown University Law School, 1876; LL.D., National University Law School, 1897. Professor of Law, National University Law School, 1888–1907;

American Agent, United States vs. Mexico, Pious Fund Case, Hague Permanent Court of Arbitration, 1902; Umpire, Italian-Venezuelan Mixed Claims Commission, 1903; American Counsel, United States vs. Peru, Landreau Case, London, 1924, before United States–Peruvian Commission.

RAMSPERGER, BARBARA BURKS (MRS.) (123) 286 S. Chester, Pasadena-p [(Wakefield 1088)
Research Associate, Psychology
A.B., Stanford, 1924, Ph.D., 1929. Research Assistant, Stanford, 1924–29. At Stanford since 1924.

RATHBUN, HARRY JOHN (123) 513 Encina-*2171* (PA 4990)
Acting Associate Professor of Law
A.B., Stanford, 1916, Engineer, 1920, J.D., 1929.

RAWLINS, AUBREY GATLIFF (123) Olympic Club, SF-sf (Prospect 4400)
Clinical Instructor in Surgery (Otology, Rhinology, Laryngology)
A.B., Stanford, 1921, M.D., 1925. Interne, Stanford Hospital, 1924–25; House Officer in Oto-rhino-laryngology, San Francisco Hospital, 1925–27; Aurist, Southern Pacific Hospital; Assistant Visiting Oto-rhino-laryngologist, San Francisco Hospital, and Visiting Oto-rhino-laryngologist, Laguna Honda Home; Assistant in Instruction, Surgery, Stanford, 1926–28. At Stanford since 1926.

†RAY, JAMES CHANDLER (34) 865 Hamilton, P* (PA 8310)
Research Associate in Geology
A.B., Stanford, 1913, A.M., 1914, Ph.D., 1929. At Stanford since 1930.

†READ, JAY MARION (123) 1461 Seventeenth Ave., SF-sf (Montrose 2219)
Associate Clinical Professor of Medicine
B.S., California, 1912, M.S., 1913; M.D., Stanford, 1915. Assistant, Stanford Medical Service, San Francisco Hospital, since 1916; Captain, M.R.C., U.S.A., August 1917 to January 1919. At Stanford since 1916.

†REDFIELD, ALFRED CLARENCE (4) Pine Inn, Carmel*
Acting Associate Professor of Physiology (Hopkins Marine Station)
B.S., Harvard, 1913, Ph.D., 1917. Austin Teaching Fellow in Physiology, Harvard, 1916–17, Instructor, 1917–19; Assistant Professor of Physiology, Toronto, 1919–20; Assistant Professor of Physiology, Harvard University, since 1921.

†REHFISCH, JOHN MORSE (123) 1940 Scott, SF-sf (Fillmore 3639)
Assistant Clinical Professor of Medicine (Radiology)
M.D., University of California, 1915. Assistant in Pathology, University of California, 1915–17, Instructor in Medicine, 1919–23. At Stanford since 1927.

†REICHERT, FREDERICK LEET (123) 15 Seventh Ave., SF-sf (Skyline 4804)
Associate Professor of Surgery
Ph.B., Franklin and Marshall College, 1916; M.D., Johns Hopkins University, 1920. Research Fellow, Hunterian Laboratory of Experimental Surgery, 1920–21; Assistant Resident Surgeon, Johns Hopkins Hospital, 1921–24, Resident Surgeon, 1924–26, Instructor in Surgery, 1922–26. At Stanford since 1926.

†REID, ELLIOTT GRAY (123) 498 Amherst, M* (PA 3437)
Professor of Aërodynamics
B.S., Michigan, 1922, M.S., 1923. With National Advisory Committee for Aëronautics, Langley Field, 1922–27. At Stanford since 1927.

REILLY, JULIA MARGARET (123) 828 Cowper, P-*1277* (PA 5206)
Assistant Director (Encina Commons)
A.B., University of South Dakota, 1926. At Stanford since 1929.

REMELE, MIRIAM FRANCES (1234) 367 Addison, P* (PA 21352)
Editorial Secretary, Registrar's Office
At Stanford since 1920.

RETHWILM, LORRULI ANNA (123) 2217 Webster, SF-sf (West 0399)
Clinical Instructor in Surgery (Anesthesia)
A.B., Washington University, 1913; M.D., Stanford, 1917. Assistant in Surgery, Stanford, 1921–27. At Stanford since 1921.

†REYNOLDS, CHARLES NATHAN (123) 611 Alvarado (PA 4992)
Associate Professor of Sociology (Economics)
A.B., University of Oregon, 1913, A.M., 1922; Ph.D., Stanford, 1927. Instructor in Sociology, University of Oregon, 1923–25; Instructor in Citizenship and Economics, Stanford, 1925–27; Acting Instructor in Education, University of California, Intersession, 1926; Acting Professor of Sociology, University of Oregon, Summer Sessions, 1927, 1929; Professor of Economics, University of Hawaii, 1927–28. At Stanford, 1925–27, and since 1928.

†REYNOLDS, LEON BENEDICT (123) 853 Middlefield, P-*1826* (PA 7130)
Professor of Hydraulic and Sanitary Engineering
A.B., Hillsdale, 1906; A.B., Stanford, 1909. Student, Cornell University, 1911–12; Assistant Engineer, Burns & McDonnell, Kansas City (Mo.), 1909–11, 1912–19; Member of firm, Burns & McDonnell Engineering Co., Kansas City (Mo.), 1920–23. At Stanford since 1923.

†REYNOLDS, LLOYD ROBINSON (123) 2762 Filbert, SF-sf (Walnut 0619)
Clinical Instructor in Surgery (Genito-Urinary)
A.B., Stanford, 1915, M.D., 1920. Assistant in Surgery, Stanford Medical School, 1921–22; Fellow in Surgery, Peter Bent Brigham Hospital, Boston, 1923. At Stanford since 1921.

†RICH, WILLIS HORTON (123) 1966 Cowper, P* (PA 7891)
Lecturer in Zoölogy
B.S., Lombard, 1905; A.B., Stanford, 1909, A.M., 1918, Ph.D., 1924. Instructor in Biology, University of Southern California, 1907–8; Assistant in Zoölogy, Stanford, 1909–10, Instructor in Zoölogy, 1913–14, 1917–18, Instructor in Physiology, 1916–17; with California Fish and Game Commission, 1910–13; Scientific Assistant, U.S. Bureau of Fisheries, 1914–22, Chief of Division of Inquiry, 1922–26, Chief Investigator, Salmon Fisheries, 1926–29; In charge, Pacific Fishery Investigations, since 1929; Member, International Committee for Marine Fishery Investigation, 1922–26; Member, Pacific Salmon Investigation Federation, since 1926; Member, United States Subcommittee on the Oceanography of the Pacific, Pacific Science Congress, since 1926; Member, Committee on Aquiculture, National Research Council, since 1927.

RICKER, CHRISTINE ISABELLE (1234) 615 Lasuen-*1069* (PA 8206)
Assistant Director (Stanford Union)
B.S., Simmons College, 1917. At Stanford since 1922.

†RIXFORD, EMMET (123) 1795 California, SF-sf (Graystone 2030)
Professor of Surgery
B.S., California, 1887; M.D., Cooper Medical College, 1891. Adjunct Professor of Surgery, Cooper Medical College, 1893–98, Professor, 1898–1912; Visiting Surgeon, Lane Hospital, 1895–1912, City and County Hospital, San Francisco, since 1894; Instructor in Surgery, Training School for Military Officers, U.S.A., March to December 1918. At Stanford since 1909.

†ROBBINS, CARL BURTON (123) 625 Lasuen (PA 21583)
Assistant Professor of Economics
A.B., Stanford, 1924, A.M., 1925; M.B.A., Harvard, 1927; Ph.D., Stanford, 1928. At Stanford since 1927.

†Robinson, Edgar Eugene (1234) 591 Salvatierra-*1438* (PA 21220)
Professor of American History, and Director of Citizenship

A.B., Wisconsin, 1908, A.M., 1910. Assistant in History, University of Wisconsin, 1908–9, Fellow in American History, 1909–10; Assistant Professor of History, Carleton College, 1910–11; Instructor in History, University of Minnesota, Summer Session, 1912, Resident Lecturer, 1915–16; Assistant Professor of History, University of Michigan, Summer Session, 1916; Assistant Educational Director, S.A.T.C., 1918; Visiting Professor of American History, Yale University, 1919–20; Lecturer in American History, University of California, 1924; Professor of History, Columbia University, Summer Session, 1926. At Stanford since 1911.

†Rodin, Frank H. (1234) 2205 Sacramento, SF-sf (Walnut 0797)
Clinical Instructor in Surgery (Ophthalmology)

A.B., Manitoba, 1916, M.D., C.M., 1920. Interne, St. Boniface General Hospital, 1918–19; House Surgeon, Winnipeg General Hospital, 1919–20; Eye, Ear, Nose, and Throat Clinics, Washington University, 1923–24; Senior Interne, Lane Hospital, 1924–26; Consultant in Ophthalmology and Otology, San Francisco Board of Health, since 1925; Chief of Ophthalmology, Mt. Zion Clinic and Hospital. At Stanford since 1924.

†Roelofs, Howard Dykema (1234) 546 Washington, P-*625* (PA 3994)
Associate Professor of Philosophy

A.B., Michigan, 1915, A.M., 1916; Ph.D., Harvard, 1925. Fellow in Philosophy, Michigan, 1916–17, Instructor in Rhetoric, 1921–23; Assistant in Philosophy, Harvard, 1924–25; Assistant Professor of Philosophy, University of California at Los Angeles, 1925–27. At Stanford since 1927.

†Rogers, Austin Flint (123) 549 Salvatierra-*87* (PA 7727)
Professor of Mineralogy

A.B., Kansas, 1899, A.M., 1900; Ph.D., Columbia, 1902. Assistant in Mineralogy, University of Kansas, 1898–1900; Assistant Geologist, University Geological Survey of Kansas, 1898–1900, 1903; Fellow in Mineralogy, Columbia University, 1900–1902, Tutor in Mineralogy, 1902–5. At Stanford since 1905.

Rogers, Josephine (Mrs.) (4) 951 Bryant, P-*2238*
Acting Instructor in Physical Education for Women

A.B., Reed, 1917. Assistant in Physical Education, Reed, 1915–18; Reconstruction Aide in Physio-Therapy, Base Hospitals, France, 1918–19; Director of Physical Education, Santa Cruz High School, 1919–22.

[Rogers, William Lister Olympic Club, SF-sf (Prospect 4400)
Clinical Instructor in Surgery (San Francisco Hospital)]

A.B., Stanford, 1923, M.D., 1926. At Stanford since 1927.

Rooney, Margaret (1234) 949 Webster, P-*2155* (PA 5407)
Secretary, Food Research Institute

At Stanford since 1925.

†Ross, Chester J. (1234) 2607 Etna, Berkeley-b (Berkeley 2757)
Assistant Superintendent, Lane and Stanford Hospitals

At Stanford since 1917.

†Ross, George Alexander Johnston (2) 736 Coronado* (PA 4551)
Acting Chaplain

M.A., Edinburgh, 1884; Hon.D.D., Harvard, 1920; Hon.D.D., Knox College (Toronto), 1922. Professor of Homiletics, Union Theological Seminary, 1912–26, Professor Emeritus and Lecturer in Homiletics, 1926–29.

†Ross, Perley Ason (123) 1830 Cowper, P* (PA 6645)
Professor of Physics

A.B., Stanford, 1908, A.M., 1910, Ph.D., 1911. Acting Professor of Physics, Cornell, 1926–27. At Stanford since 1908.

†Roth, Almon Edward (1234) 462 Santa Teresa* (PA 6901)
Comptroller

A.B., Stanford, 1909, J.D., 1912. At Stanford since 1919.

†Roth, Earle Frederick (123) 149 Edgewood, P* (PA 7744)
Medical Officer for Athletes

A.B., Stanford, 1915, M.D., 1921. At Stanford since 1927.

[†Rowell, Chester Harvey 149 Tamalpais Road, Berkeley-b
Lecturer in Political Science (International Relations)] [(Ashberry 2200)

Ph.B., University of Michigan, 1888. Graduate Student, University of Michigan, 1888–89; Student, University of Halle, University of Berlin, 1892–95; Regent, University of California, since 1913.

Rowland, Mary De (1234) 326 Addison, P-*867* (PA 21546)
Secretary, Lower Division

At Stanford since 1923.

Russell, Frances Theresa (Mrs.) (134) 534 Lasuen-*102* (PA 5956)
Associate Professor of English

Ph.B., State University of Iowa, 1895; Ph.D., Columbia, 1920. Graduate Student, Radcliffe College, 1898–99. At Stanford since 1906.

Ruud, Martin Bronn (4) 565 Salvatierra
Acting Professor of English

A.B., University of North Dakota, 1906, A.M., 1907; Ph.D., Chicago, 1915. Traveling Fellow in English, University of Chicago, 1912–14; Fellow of the American-Scandinavian Foundation, 1912–14 (studies pursued at the Universities of Oslo, Copenhagen, Upsala, and Berlin); Instructor in English, University of North Dakota, 1907–10; Instructor in English and German, University of Chicago, 1914–15; Instructor in Rhetoric, University of Minnesota, 1915–19, Assistant Professor of Rhetoric, 1919–21, Assistant Professor of English, 1921–25, Associate Professor, 1925–27, Professor since 1927.

†Ryan, Harris Joseph (123) 525 Embarcadero, P-*K* (PA 4827)
Professor of Electrical Engineering

M.E., Cornell, 1887; LL.D., California, 1925. With Western Engineering Co., Lincoln (Neb.), 1887–88; Instructor in Physics, Cornell University, 1888–89, Assistant Professor of Electrical Engineering, 1889–92, Associate Professor, 1892–95, Professor, 1895–1905; Judge, Board of Awards, World's Fair, Chicago, 1893; U.S. Government Delegate, International Electrical Congress, St. Louis Exposition, 1904; Consulting Electrical Engineer, Los Angeles Aqueduct Power Project, 1909–23; President, American Institute of Electrical Engineers, 1923-24. At Stanford since 1905.

†Ryfkogel, Henry Anthon Lewis (123) 23 Belmont, SF-sf
Lecturer on Surgery (San Francisco Hospital) [(Lockhaven 2747)

M.D., California, 1894. Instructor in Anatomy, University of California, 1894–98, Instructor in Clinical Pathology, Medical Department, 1898–1900, in Bacteriology, 1900–1906, in Surgical Pathology, 1906–7; Surgical Chief, San Francisco Polyclinic, and Visiting Surgeon, San Francisco Hospital, since 1904. At Stanford since 1919.

Santes, Marie (1234) 513 Salvatierra-*1274* (PA 8953)
Cataloguer, Hoover War Library

A.B., Carleton, 1911; B.L.S., New York State Library School, 1926. High School Teacher, 1911–13; Student, New York State Library School, 1916–18; Temporary Assistant, Newark (N.J.) Free Public Library, Summer, 1917; Cataloguer, University of Minnesota Library, 1918–23. At Stanford since 1923.

†Scattergood, Ezra Frederick (123) 524 Muirfield Rd., Los Angeles-la
Lecturer in Electrical Engineering [(Oregon 2205)

B.S., Rutgers, 1893, M.S., 1896; M.M.E., Cornell, 1899. Instructor in Mathematics and Electrical Science, Rutgers; Fellow in Electrical Engineering, Cornell; Pro-

fessor of Electrical Engineering, Georgia School of Technology; Consulting Electrical Engineer, Los Angeles; Chief Electrical Engineer and General Manager, Bureau of Power and Light of the City of Los Angeles, since 1909.

†Schall, Myron Reed (1234) 1027 High, P* (PA 5354)
Instructor in Physical Education and Hygiene

A.B., Stanford, 1927. At Stanford since 1927.

†Schaller, Walter Frank (123) 164 Sea Cliff, SF-sf (Evergreen 5614)
Clinical Professor of Medicine (Neurology)

M.D., Cooper Medical College, 1902. Assistant in Pathology, Cooper Medical College, 1905–6; Assistant Surgeon, U.S.N., 1906–8; Student, Paris, Berlin, Vienna, Karlsruhe, 1909–11; P.A. Surgeon, U.S.N.R.F., June to December 1917 and October 1918 to 1926. At Stanford since 1911.

†Schaupp, Karl Ludwig (123) 45 Walnut, SF-sf (Fillmore 0921)
Associate Clinical Professor of Obstetrics and Gynecology

A.B., Stanford, 1913, M.D., 1916. First Lieutenant, M.R.C., U.S.A., August to December 1918; Visiting Obstetrician, San Francisco Hospital, since 1919; Visiting Gynecologist, San Francisco Hospital, since 1923; Obstetrician, Franklin Hospital; Director, Out-Patient Obstetrics for City of San Francisco. At Stanford since 1918.

†Schenck, Hubert Gregory (123) 101 Waverley, P-*1583* (PA 6625)
Assistant Professor of Geology

A.B., Oregon, 1922, A.M., 1923; Ph.D., California, 1926. Associate in Paleontology, University of California, 1923–24. At Stanford since 1924.

†Schilling, Hugo Karl (3) 908 Mendocino, Berkeley*
Acting Professor of German

A.M. and Ph.D., Leipzig, 1885. Professor of Modern Languages, Wittenberg College (Ohio), 1886–91; Assistant Professor of German, Harvard, 1891-1901; Professor of German Language and Literature, University of California, 1901–29, Emeritus since 1929.

†Schilling, Walter (12) 2500 Steiner, SF-sf (Walnut 6250)
Clinical Instructor in Medicine

A.B., California, 1919, A.M., 1920; M.D., Harvard, 1924. Senior Interne in Neuropsychiatry, Lane Hospital, 1924–25, Assistant in Medicine (Neurology), 1925–26; Neurologisches Institute, Psychiatrische Klinik, Allegemeine Poliklinik, Vienna, 1926–27. At Stanford since 1925.

†Schultz, Edwin William (123) 743 Cooksey Lane (PA 6626)
Professor of Bacteriology and Experimental Pathology

B.S., Winona College, 1913; A.B., Michigan, 1914; M.D., Johns Hopkins, 1917. Special Student in Protozoölogy, School of Hygiene and Public Health, Johns Hopkins University, 1919; Fellow in Pathology, Mayo Foundation, Spring and Summer Quarters, 1921–22; Field Director, International Health Board, 1917; First Lieutenant and Captain, M.C., U.S.A., Deputy Commissioner (Major, U.S.A.), American Red Cross, 1917–19; Chief of Laboratory, 33d Division, U.S. Army; Pathologist, Base Hospital No. 42, A.E.F., 1917–18; Chief of Laboratory, A.R.C. Military Hospital No. 9, A.E.F.; Bacteriologist, A.R.C. Commission to Germany; Chief of Bureau of Medical Research, A.R.C. Commission to Poland, 1918–19; John Simon Guggenheim Memorial Fellow in Bacteriology for research abroad, 1925–26. At Stanford since 1920.

Schultze, Agnes Wilhelmina (1234) 345 Forest, P* (PA 7973)
Assistant Curator, Commission for Relief in Belgium Archive, Hoover War Library

Certificate, Drexel Institute Library School, 1914. Reference Assistant, Carnegie Library, Pittsburgh, 1914–15; First Assistant, Hudson Park, Tremont, Central Branches, New York Public Library, 1915-20; Indexer, American Relief Administration, 1920–26. At Stanford since 1926.

†Schwartz, William Leonard (1234) 667 Salvatierra-*572* (PA 8036)
Assistant Professor of Romanic Languages

A.B., Ohio Wesleyan, 1910; A.M., Stanford, 1920, Ph.D., 1926. Professor of English, Kagoshima Seventh Government College, Japan, 1910–14, Nagasaki Imperial College of Commerce, 1914–19; Professor of French, College of the Pacific, 1919–20; Student, University of Paris, 1921; Lecturer in French, University of Southern California, Summer Session, 1927; Certificat d'études pratiques de prononciation française, University of Paris, 1929. At Stanford since 1920.

Scott, Elizabeth (123) 2340 Clay, SF-sf (West 8000)
Instructor in Practice of Nursing

B.S., New York State Teachers College, 1913. Teacher of English, Junior High School, New Jersey, 1914–21; Graduate Student, Columbia University, 1920; Graduate, St. Christopher's Hospital Training School, Philadelphia, 1925; Community Health Center, Children's Aid Society, New York City, 1925. At Stanford since 1929.

†Sears, Jesse Brundage (123) 1120 Parkinson, P-*1176* (PA 8556)
Professor of Education

A.B., Stanford, 1909; Ph.D., Teachers College, Columbia, 1920. Student, University of Chicago, Summer Quarter, 1910; Research Scholar, Teachers College, Columbia University, 1910–11; Instructor in Education, University of Wisconsin, 1909–10; Assistant in Educational Sociology, Teachers College, Columbia University, Summer Session, 1911; Acting Associate Professor of Education, University of Minnesota, 1920–21; Director, Survey of University of Minnesota, Autumn Quarter, 1921–22; Visiting Professor, University of Pennsylvania, Summer Session, 1927. At Stanford since 1911.

Sedgwick, Mary Louise (123) Roble-*1834* (PA 21441)
House Director (Roble Hall)

B.S., Iowa State, 1928. At Stanford since 1928.

Seem, Ralph Berger (123) 1450 Greenwich, SF-sf (Graystone 8125)
Professor of Hospital Administration, and Physician-Superintendent of Lane and Stanford University Hospitals

Ph.B., Lafayette College, 1902; M.D., Johns Hopkins, 1906. Medical Superintendent, James Walker Memorial Hospital, Wilmington (N.C.), 1908–12; Assistant Superintendent, Johns Hopkins Hospital, 1912–20, Acting Superintendent, 1917–19; Director, Albert Merritt Billings Hospital, University of Chicago, 1920–29; Medical Superintendent, Peking Union Medical College Hospital, 1921–23. At Stanford since 1929.

†Seitz, Roland P. (123) 21 Frederick, SF-sf (Underhill 8338)
Assistant Clinical Professor of Pediatrics

A.B., Stanford, 1919, M.D., 1923. Senior Interne, Pediatrics, Lane Hospital, 1923–24. At Stanford since 1924.

Sellards, John Armstrong (1234) 344 Serra-*111* (PA 5246)
Dean of Summer Quarter, and Secretary to Stanford National Board

A.B., Illinois, 1912; A.M., Stanford, 1916. At Stanford, 1916–17, 1919–20, 1922–23, and since 1924.

†Sewall, Edward Cecil (12) 430 El Escarpado (PA 3925)
Clinical Professor of Surgery (Otology, Rhinology, Laryngology)

A.B., Stanford, 1898; M.D., Cooper Medical College, 1902. Assistant and Instructor in Ophthalmology, Cooper Medical College, 1901–7, Assistant Professor, 1907–9; Student in Freiburg, 1909–10; Associate Professor of Diseases of Eye, Ear, Nose, and Throat, Cooper Medical College, 1910–12. At Stanford since 1912.

†Seward, Samuel Swayze, Jr. (123) 262 Kingsley, P-p (PA 5440)
Professor of English

A.B., Columbia, 1896, A.M., 1897. Scholar in Literature, Columbia University, 1896–97, Assistant in Literature, 1897–99; Student, Oxford University, 1899–1900;

Acting Professor of English, University of Nevada, 1907; Assistant Professor of English, University of California, Summer Session, 1907, University of Oregon, Summer Session, 1908. At Stanford since 1900.

†Shafer, George Daniel (123) 321 Melville, P-p (PA 3964)
Assistant Professor of Physiology

A.B., Indiana, 1900; A.M., Stanford, 1906; Ph.D., Cornell, 1908. Fellow in Entomology and Invertebrate Zoölogy, Cornell University, 1906–8; Research Assistant, Experiment Station, Michigan Agricultural College, 1908–14, Associate, 1914–17. At Stanford since 1918.

†Shedd, Solon (123) 663 San Juan-*1888* (PA 5972)
Curator, Branner Geological Library

B.S., Monmouth, 1889; A.B., Stanford, 1896, A.M., 1907, Ph.D., 1910. Instructor in Natural Sciences, State Normal School, Monmouth (Ore.), 1889–94; Assistant Professor of Geology, State College of Washington, 1896–1901, Professor, 1901–25; Geologist, Washington State Geological Survey, 1901–3, Assistant State Geologist, 1909–11, State Geologist, 1921–25; Acting Associate Professor of Geology, Stanford, Summer and Autumn Quarters, 1921, Acting Professor of Geology, Summer Quarter, 1922. At Stanford, 1921, 1922, and since 1925.

†Shepard, Orson Cutler (123) 626 Middlefield, P* (PA 7043)
Instructor in Mining and Metallurgy

A.B., Stanford, 1925, Engineer, 1928. Research Engineer, Anaconda Copper Mining Co. (Montana), 1925–26; Metallurgist, San Luis Mining Co. (Mexico), 1926–27. At Stanford since 1928.

Shepard, William Peacey (123) 2160 Waverley, P-p (PA 7497)
Lecturer in Industrial Hygiene

B.S., Minnesota, 1919, M.B., 1920, M.D., 1921, A.M., 1922. Instructor in Public Health and Preventive Medicine, and Assistant Director, Students' Health Service, Minnesota, 1920–23; Special Lecturer in Hygiene, Western Union College (Iowa), 1923–24; Medical Director, Berkeley Health Center, 1924–26; Health Officer, Berkeley, 1924–26; Director, Health and Development, Berkeley Public Schools, 1924–28; Assistant Secretary and Welfare Director, Pacific Coast Head Office, Metropolitan Life Insurance Co., San Francisco.

†Shepardson, Dwight Emerson (123) 80 Yerba Buena, SF-sf
Clinical Instructor in Medicine [(Montrose 8672)

A.B., Stanford, 1917, M.D., 1921. Resident in Medicine, Lane Hospital, 1922–23. At Stanford since 1922.

[†Shepherd, Harold 744 Guinda, P*
Professor of Law]

A.B., Stanford, 1919, J.D., 1922. Dean of the Law School, University of Wyoming, 1922–23; Visiting Professor of Law, Columbia University, Summer Session, 1929; Visiting Professor of Law, University of Chicago, 1929–30. At Stanford since 1923.

†Sherman, Julius (123) 75 Sea Cliff, SF-sf (Evergreen 3232)
Clinical Instructor in Medicine

M.D., California, 1916. Interne, Mount Zion Hospital, 1916–17; Voluntary Assistant in Medicine, University of California, 1917–18, Assistant, 1918–21. At Stanford since 1925.

Shue, Violet L. (Mrs.) (1234) 114 Pope, P-*2273*
Assistant Reference Librarian

A.B., South Dakota, 1921. At Stanford, 1922–24, and since 1927.

†Simes, Lewis Mallalieu (4) 528 Alvarado* (PA 5986)
Acting Professor of Law

A.B., Southwestern College, 1909; Ph.B., University of Chicago, 1912, J.D., 1914; J.S.D., Yale, 1927. Instructor, University of Montana, 1919, Professor of Law,

1919–22; Professor of Law, Ohio State University, since 1922; Research Fellow, Yale, 1926–27; Acting Professor of Law, University of Chicago, Summer Quarter, 1927, University of Michigan, Summer Quarter, 1929.

SKOGSBERG, TAGE (1234) 116 Fifteenth, Pacific Grove* (PG 673)
Associate Professor of Zoölogy (Hopkins Marine Station)

A.M., Upsala, 1912, Ph.D., 1920. Curator, Zoölogical Institution, Upsala, 1917–20; Upsala University Scholar, Musée Oceanographique of Monaco, 1915; Hopkins Marine Station, 1921; Scientific Assistant, California Fish and Game Commission, 1922; Research Assistant, University of California, 1923–25, Associate in Zoölogy, Second Semester, 1925–26. At Stanford, Summer Quarter, 1925, and since 1926.

†SLOAN, WILLIAM HENRY (123) Manuella, Alta Mesa* (PA 29192)
Associate Professor of Chemistry

A.B., Stanford, 1903, A.M., 1904. Student, University of Leipzig, 1904–5; Assistant Chemist, San Francisco Board of Health, 1905–6. At Stanford, 1903–4, and since 1906.

†SLONAKER, JAMES ROLLIN (123) 334 Kingsley, P* (PA 7223)
Associate Professor of Physiology

B.S., Wisconsin, 1893; Ph.D., Clark, 1896. Fellow in Biology, Clark University, 1893–96; with United States Fish Commission, Woods Hole (Mass.), Summer, 1895; Instructor in Zoölogy, Indiana University, 1896–99, Biological Station, 1896–1900, Assistant Professor of Zoölogy, 1899–1901; Research Assistant in Neurology, University of Chicago, 1901–2, Associate in Neurology, 1902–3. At Stanford since 1903.

SMITH, EDWARD ANDERSON (123) 545 Bryant, P-*2132* (PA 8818)
Instructor in Physical Education and Hygiene

A.B., Stanford, 1928. At Stanford since 1928.

†SMITH, EVERETT WALLACE (134) 556 Alvarado-*678* (PA 4426)
Professor of Journalism, and Director of Publicity

A.B., Stanford, 1899. At Stanford since 1910.

†SMITH, GILBERT MORGAN (123) 1808 Waverley, P* (PA 4846)
Professor of Botany

A.B., Beloit, 1907; Ph.D., Wisconsin, 1913; D.Sc., Beloit, 1927. Assistant in Botany, Wisconsin, 1909–10; Instructor in Botany, Pomona, 1910–11; Assistant in Botany, Wisconsin, 1911–12, Instructor, 1912–17, Assistant Professor, 1917–19, Associate Professor, 1919–25; Acting Associate Professor, Stanford, Autumn Quarter, 1923–24. At Stanford, 1923, and since 1925.

†SMITH, JAMES PERRIN (123) 1335 Cowper, P-p (PA 7180)
Professor of Paleontology

A.B., Wofford College, 1884; A.M., Vanderbilt, 1886; Ph.D., Göttingen, 1892; LL.D., Wofford College, 1916. Assistant Geologist and Chemist, Arkansas Geological Survey, 1887–90; Assistant Geologist, U.S. Geological Survey, 1895–1906, Geologist, 1906–24. At Stanford since 1892.

†SMITH, STANLEY ASTREDO (123) 2 Finger, Redwood City-rc
Professor of Romanic Languages [(Redwood 285W)

A.B., Stanford, 1903, A.M., 1905. Assistant in Romanic Languages, Stanford University, 1903–4, Instructor, 1904–7; Student, Universities of Paris and Madrid, 1906–7; Instructor in French and Italian, University of Washington, 1907–11; Student, Harvard University, 1911–13, Instructor in Romance Languages, 1912–13; Professor of Romance Languages, Reed College, 1913–14; Acting Assistant Professor of French, University of Washington, Summer, 1920, University of California, Summer, 1922; Lecturer in Italian, University of California, 1927–28. At Stanford, 1903–7, and since 1914.

SNELL, ELIZABETH BURRITT (MRS.) (1234) 1333 Tasso, P* (PA 6896)
Appointment Secretary

A.B., Stanford, 1908. At Stanford since 1916.

SNODGRASS, KATHARINE (123) 712 Salvatierra* (PA 3592)
Research Associate, Food Research Institute

A.B., Bryn Mawr, 1915; A.M., Columbia University, 1918. Research Assistant, War Industries Board, 1918–19, Federal Reserve Board, 1919–22; Associate Editor, *New York Journal of Commerce*, 1923. At Stanford since 1924.

†SNYDER, JOHN OTTERBEIN (123) 542 Alvarado (PA 7037)
Professor of Zoölogy

A.B., Stanford, 1897, A.M., 1899. Assistant, U.S. Fish Commission, 1897, 1899, 1904, 1915, 1916; Naturalist on U.S.S. "Albatross" engaged in deep sea investigations, 1902, 1906; Expert Ichthyologist, U.S. National Museum, 1914; Fisheries Expert, Fish and Game Commission of California, since 1919; Director, U.S. Fisheries Marine Laboratory, Woods Hole (Mass.), 1926. At Stanford since 1897.

SOLALINDE, ANTONIO GARCÍA (4) Branner (PA 3121)
Acting Professor of Spanish

Doctor en Filosofía y Letras, Universidad Central (Madrid). Formerly Professor of Spanish Literature, Centro de Estudios Históricos (Madrid); Acting Professor of Spanish, Columbia University, Summer Session, 1922; Associate Professor of Spanish, University of Michigan, 1922–23; Acting Professor of Spanish, University of California, Summer Session, 1923; Visiting Professor of Spanish, University of Wisconsin, 1924–25, Professor of Spanish Literature, since 1928; Acting Professor, Stanford, Summer Quarter, 1925, University of Chicago, Summer Quarter, 1926, University of Texas, First Semester, 1928–29; Fellow of the Guggenheim Foundation, 1929–30.

†SPALDING, ALFRED BAKER (1234) 2651 Green, SF-sf (Fillmore 0826)
Professor of Obstetrics and Gynecology

A.B., Stanford, 1896; M.D., Columbia, 1900. House Surgeon, General Memorial Hospital, New York, 1900–1901; Assistant Resident Physician, Sloane Maternity Hospital, New York, 1901–2; Instructor in Obstetrics, University of California, 1902–5, Assistant Professor, 1905–9, Professor, 1909–12. At Stanford since 1912.

SPAULDING, RUTH (1234) 528 Channing, P-p (PA 8464)
Chief, Serial Division, Library

A.B., Stanford, 1922. At Stanford since 1923.

SPENNER, IRENE (MRS.) (1234) 759 Webster, P-*2573* (PA 5949)
Executive Assistant, Appointment Office

A.B., Indiana University, 1923. At Stanford since 1925.

†SPOEHR, HERMAN AUGUSTUS (1234) 263 Churchill, P* (PA 5580)
Acting Professor of Chemistry

S.B., Chicago, 1906, Ph.D., 1909, Sc.D., 1929. Student, University of Berlin, 1907, University of Paris, 1908; Associate in Chemistry, Chicago, 1909–10; Staff Member, Laboratory for Plant Physiology, Carnegie Institution of Washington, 1910–26, Assistant Director, 1927, Chairman, Division of Plant Biology, since 1928; Acting Professor, Stanford, Summer Quarter, 1924.

†SPRAGUE, CHARLES MYRON (1234) 512 Governor's Ave. (PA 7647)
Assistant Director of Physical Education and Hygiene,
and Acting Director of Swimming

A.B., Bowdoin College, 1920. Ensign, U.S. Navy, April 1917–August 1919; Director of Physical Education, Ellensburg (Wash.) High School, 1922–24; University of Illinois Coaching School, Summer, 1924. At Stanford since 1924.

†SPROUT, HAROLD HANCE (123) 159 Kellogg, P-p (PA 6002)
Acting Assistant Professor of Political Science

A.B., Oberlin, 1924, A.M., 1924; Ph.D., Wisconsin, 1929. Assistant in Political Science, University of Wisconsin, 1924–25, 1927–28; Acting Assistant Professor of Government, Miami University (Ohio), 1926–27; Carnegie Fellow in International Law, 1928–29.

†Stadtherr, Edward F. (123) 775 Sixth Ave., SF-sf (Evergreen 0764)
Clinical Instructor in Medicine (Neuropsychiatry)

M.D., St. Louis University, 1913. Assistant Surgeon, U.S.N., 1917–20, Past Assistant Surgeon, 1920–21; Franklin Hospital, 1926–27; Southern Pacific Hospital, since 1928; Laguna Honda Home, since 1928. At Stanford since 1921.

Starks, Chloe Lesley (Mrs.) (134) 1115 Ramona, P-p (PA 21276)
Associate Professor of Education (Graphic Art)

At Stanford since 1899.

†Starks, Edwin Chapin (123) 1115 Ramona, P* (PA 21276)
Associate Professor of Zoölogy

Assistant in United States Bureau of Biological Survey, 1897–99; Curator of the Museum and Assistant Professor of Zoölogy, University of Washington, 1899–1900; Investigator, Naples Zoölogical Station, 1907, 1914. At Stanford since 1900.

Stauf, Ida (123) 683 Salvatierra (PA 3750)
Instructor in Romanic Languages

A.B., Stanford, 1910, A.M., 1912; Docteur de l'Université de Paris, 1927. Private Instructor in French, Italian, and German, Palo Alto, 1910-18; Assistant in Instruction, Romanic Languages, Stanford, 1918–22, 1923–25; Student, University of Paris, 1922–23; Research Student, University of Paris, 1925–27. At Stanford, 1918–22, 1923–25, and since 1928.

†Stebbins, Horatio Ward (123) 327 Addison, P-p (PA 7513)
Associate Professor of Mechanical Engineering

A.B., California, 1899; B.S., Massachusetts Institute of Technology, 1902. Assistant to Engineer of Tests, Southern Pacific Company, 1902–5; Engineer and Estimator, San Francisco Bridge Company, 1905–13. At Stanford since 1914.

Steinmetz, Ruth Lolita (1234) 1021 Ramona, P* (PA 5838)
Cataloguer, Library

A.B., Stanford, 1922. Student, School of Librarianship, University of California, 1922–23. At Stanford since 1923.

†Stephenson, Henry Augustus (1234) 2677 Larkin, SF-sf
Associate Clinical Professor of Obstetrics and Gynecology [(Graystone 5788)

A.B., Randolph-Macon College, 1906; M.D., Johns Hopkins Medical School, 1910. Assistant Resident Obstetrician, Johns Hopkins Hospital, 1911–12, Resident Obstetrician, 1912–14; Assistant in Obstetrics, Johns Hopkins Medical School, 1911–12, Instructor, 1912–14; First Lieutenant, M.R.C., U.S.A., April 1918 to January 1919. At Stanford since 1914.

†Stevens, William Emerson (1234) 1007 Gough, SF-sf (Ordway 9765)
Associate Clinical Professor of Obstetrics and Gynecology (Urology)

M.D., California, 1899. Chief of Genito-Urinary Clinic, San Francisco Polyclinic, 1912–18, Chief of Genito-Urinary Department since May 1918, Chief of Gynecological Urology Department, since 1916; Visiting Urologist, San Francisco Hospital, since 1916; Consulting Genito-Urinary Surgeon, Bethlehem Shipbuilding Corporation, Ltd., Hospital, since March 1918. At Stanford since 1919.

Stillman, Minna (1234) 520 Alvarado (PA 4528)
Document Librarian

A.B., Stanford, 1903. At Stanford since 1912.

Stillson, Grace Elizabeth (1234) Santa Rita, Los Altos-Box 432, p
Cataloguer, Library [(LA 164W)

A.B., Stanford, 1915. At Stanford since 1917.

†Stockton, Andrew Benton (123) 3144 Washington, SF-sf
Instructor in Therapeutics (Fillmore 2579)

A.B., Stanford, 1923, M.D., 1928. Assistant in Instruction, Pharmacology, Stanford, 1926–28; Assistant Resident, Medicine, Lane Hospital, 1928–29. At Stanford since 1926.

STOLTENBERG, CLARA S. (123) 525 Salvatierra-*1585* (PA 8418)
Professor of Anatomy

A.B., Stanford, 1896, A.M., 1897. At Stanford since 1896.

†STONE, CALVIN PERRY (123) 656 Channing, P-*826* (PA 4396)
Professor of Psychology

A.B., Indiana, 1915, A.M., 1916; Ph.D., Minnesota, 1921. Teaching Fellow in Education, University of Minnesota, 1916; Director of Psychological Research, Indiana State Reformatory, 1916–17; Psychological Examiner, U.S. Army, 1917–19; Teaching Fellow in Psychology, University of Minnesota, 1919–21; Instructor in Neural and Histological Anatomy, University of Minnesota, 1921–22. At Stanford since 1922.

STONE, ELSIE BAILEY (MRS.) (1234) 841 Bryant, P-p (PA 7044)
Cataloguer, Charlotte Ashley Felton Memorial Library

B.S., Simmons College Library School, 1916. Assistant Librarian, Huntington Park Union High School, 1924–25; Librarian, Lincoln Junior High School, Santa Monica, 1925; Librarian, Thomas A. Edison Junior High School, Los Angeles, 1926–27. At Stanford since 1929.

†STOREY, THOMAS ANDREW (1234) 739 Santa Ynez* (PA 6246)
Professor of Hygiene and Physical Education, Medical Adviser of Men, Director of Encina Gymnasium, and General Director of School of Hygiene and Physical Education (Men)

A.B., Stanford, 1896, A.M., 1900, Ph.D., 1902; M.D., Harvard, 1905. Diploma Interne, Long Island Hospital, Boston, 1905; Resident Physician, Boston Children's Hospital, 1906; Assistant, Instructor, and Assistant Professor of Hygiene, Stanford, 1896–1906; Associate Professor and Professor of Hygiene, and Director of the Department of Hygiene, College of the City of New York, 1906–26. At Stanford, 1896–1906, and since 1926.

STOVER, HARRY FREDERICK (1234) 1 Stanford Union-*1166* (PA 3121)
Instructor in English (Public Speaking), and Technical Director of Dramatics

B.S., Gettysburg College, 1927. Graduate Student, Yale, 1927–29; Instructor in Stage and Costume Design, Middlebury College, Summer Sessions, 1928, 1929. At Stanford since 1929.

†STRONG, EDWARD KELLOGG, JR. (123) 672 Mirada (PA 4229)
Professor of Psychology and of Applied Psychology (Graduate School of Business)

B.S., California, 1906, M.S., 1909; Ph.D., Columbia, 1911. Assistant, Barnard College, 1909–10; Fellow in Psychology, Columbia University, 1910–11; Research Fellow in Advertising for Ad Men's League, New York City, 1911–12; Research Fellow in Advertising for Association of National Advertisers, 1912–15; Lecturer, Extension Department, Columbia University, 1911–14, 1919; Professor of Psychology and Psychology of Education, George Peabody College for Teachers, 1914–17; Lieutenant Colonel, General Staff, and Member Committee on Classification of Personnel in Army, 1917–19; Professor and Head of Department of Vocational Education, Carnegie Institute of Technology, 1919–21, Head of Bureau of Educational Research, 1921–23; Professor, Carnegie School of Life Insurance Salesmanship, 1919–23. At Stanford since 1923.

[†STUART, GRAHAM HENRY 548 Gerona-*3004* (PA 7365)
Professor of Political Science]

A.B., Western Reserve, 1908; A.M., Wisconsin, 1918, Ph.D., 1919. Student, Alliance Française, 1910, Sorbonne, 1911, École Libre des Sciences Politiques, 1913–14; Assistant in Political Science, University of Wisconsin, 1917, Assistant Professor, 1921–23; Research Associate, Carnegie Institution (stationed at Lima, Peru), 1924; Acting Associate Professor, University of Chicago, Summer Quarter, 1926; Acting Professor, University of Washington, Summer and Autumn Quarters, 1927. At Stanford since 1923.

†Stuart, Henry Waldgrave (23) 654 Cabrillo-*1063* (PA 4770)
Professor of Philosophy

Ph.B., California, 1893; Ph.D., Chicago, 1900. Teacher, Hollister High School, 1893–94; Fellow in Political Economy, University of Chicago, 1894–96; Instructor (pro tem.) in Economics and Psychology, Washington University, St. Louis, 1896–97; Teacher, Central School, Oakland, 1897–98; Principal, Woodland High School, 1898–99; Fellow in Philosophy, University of Chicago, 1899–1900; Instructor in Economics and History, Ripon College, 1900–1901; Instructor in Philosophy, State University of Iowa, 1901–4; Acting Professor of Philosophy, Lake Forest College, 1904–5, Assistant Professor, 1905–7; Professor of Philosophy, University of Chicago, Summer Quarters, 1907, 1909, 1912, 1916, 1920, University of Washington, Summer Quarters, 1928, 1930. At Stanford since 1907.

†Surface, Frank Macy (12) 593 Gerona* (PA 21224)
Acting Professor of Marketing

A.B., Ohio State, 1904, A.M., 1905; Ph.D., Pennsylvania, 1907. Associate Biologist, Maine Agricultural Experiment Station, 1907–10; Student, Royal Agricultural College, Copenhagen (Denmark), 1911; Biologist, Kentucky Agricultural Experiment Station, 1910–13; Biologist, Maine Agricultural Experiment Station, 1913–17; Assistant Chief (later Acting Chief), Statistical Division U.S. Food Administration, 1917–18; Food Statistician, American Commission to Negotiate Peace, Paris, 1919; Chief Statistician, American Relief Administration, Paris and London, 1919; Economist, U.S. Grain Corporation, 1920; Director, Trade and Finance Bureau, *Washington Herald*, 1920–21; Founder and Editor, *Survey of Current Business*, Bureau of Census, 1921–23; in charge of Survey of World Trade in Agricultural Products, Bureau Foreign and Domestic Commerce, 1923–25; Economist, U.S. Grain Corporation, 1925–27; Assistant Director, Bureau of Foreign and Domestic Commerce in charge of domestic commerce work, since 1927.

Sutliff, Helen Binninger (1234) 565 Salvatierra-*927* (PA 4819)
Chief Cataloguer, Library

A.B., Kansas, 1890. Head Cataloguer, University of Kansas Library, 1891–1904; Cataloguer in Columbia University Library, Summer, 1901; Assistant in charge, University of California Summer School in Library Methods, and Instructor in Classification and Cataloguing, Summer, 1913. At Stanford since 1904.

†Swain, Robert Eckles (1234) 634 Mirada* (PA 7918)
Acting President, and Professor of Chemistry

A.B., Stanford, 1899; M.S., Yale, 1901, Ph.D., 1904; LL.D., College of the Pacific, 1929. Student, Universities of Strasbourg and Heidelberg, 1901–2, Yale University, 1909–10; Lecturer and Medalist, Charles Frederick Chandler Foundation, Columbia University, 1924. At Stanford since 1898.

Sweet, Mary C. (1234) 921 Scott, P-p (PA 5957)
Assistant Registrar

A.B., Vassar, 1906; B.S., Simmons, 1909. At Stanford since 1923.

†Swett, Wilber Frank (1234) 2944 Divisadero, SF-sf (Walnut 4737)
Assistant Clinical Professor of Surgery (Ophthalmology)

A.B., Stanford, 1917, M.D., 1922. Lieutenant, Field Artillery, A.E.F., 1917–19; House Officer, Stanford Hospital, 1923, Resident (Ophthalmology), 1924; Postgraduate, Vienna, 1925, Oxford, 1926; Diplomate, National Board of Ophthalmic Examiners, 1926; Visiting Ophthalmologist, Mary's Help Hospital, San Francisco, Southern Pacific Hospital, San Francisco. At Stanford since 1923.

†Tainter, Maurice Lane (123) 2908 California, SF-sf (Walnut 1196)
Associate Professor of Pharmacology

A.B., Stanford, 1921, A.M., 1924, M.D., 1925. Fellow of the National Research Council, Johns Hopkins, 1926–27. At Stanford since 1924.

Tanner, Hilda V. (Mrs.) (1234) 1111 High, P* (PA 7214)
Secretary to Dean, School of Engineering

At Stanford since 1920.

TAYLOR, ALONZO ENGLEBERT (1234) 344 Serra-*3031* (PA 7634)
Director and Executive Secretary, Food Research Institute

M.D., Pennsylvania, 1904; LL.D., Wisconsin, 1920. Student, University of Berlin, 1890–91, 1899–1900; Instructor, University of Pennsylvania, 1897–99; Professor of Pathology, University of California, 1900–1910; Professor of Pathological Chemistry, University of Pennsylvania, 1910–21. At Stanford since 1921.

†TAYLOR, CHARLES VINCENT (1234) 562 Gerona (PA 3333)
Professor of Biology

A.B., Mt. Morris College, 1911; A.M., University of California, 1915, Ph.D., 1917. Instructor in Zoölogy, University of California, 1917–18; Johnston Scholar, Johns Hopkins University, 1918 20; Assistant Professor of Zoölogy, University of California, 1920–23; Acting Assistant Professor of Zoölogy, Hopkins Marine Station, Stanford University, Summer, 1922 and 1923; Assistant Professor of Zoölogy (on exchange), University of Michigan, 1924; Research Associate, Tortugas Marine Station of the Carnegie Institution, Summers, 1924, 1926. At Stanford since 1925.

TAYLOR, ELIZABETH BRAND (MRS.) (1234) 635 Salvatierra-*524*
Secretary to Dr. Taylor, Food Research Institute [(PA 7888)

At Stanford since 1920.

†TAYLOR, HOWARD STORY (123) 1211 College, M* (PA 3860)
Instructor in Mechanical Engineering and Metallurgy

B.S., Michigan, 1928. Chemist, 1917; Metallurgist, Central Steel Company, 1919–20; Chief Metallurgist, Holt Manufacturing Company, 1922–24; Metallurgist and Chief Chemist, Caterpillar Tractor Company, 1924–26; Consulting Metallurgist, San Francisco, 1927; Assistant in Mechanical Engineering, Stanford, 1928. At Stanford since 1928.

†TAYLOR, PLEASANT A. (123) 2241 Bay, SF-sf (Fillmore 3925)
Clinical Instructor in Medicine

B.S., University of Oklahoma, 1912; M.D., Tulane University, 1916. Laboratory Assistant in Physiology, University of Oklahoma, 1911–12; Instructor in Anatomy, Tulane University, 1912–16; U.S. Army, 1917–19; American Red Cross, 1919–20. At Stanford since 1926.

†TEMPLETON, ROBERT LYMAN (123) 666 Lasuen (PA 5968)
Director of Track and Field

A.B., Stanford, 1921. At Stanford since 1921.

†TERMAN, FREDERICK EMMONS (123) 659 Salvatierra (PA 7670)
Assistant Professor of Electrical Engineering

A.B., Stanford, 1920, Engineer, 1922; Sc.D., Massachusetts Institute of Technology, 1924. At Stanford since 1925.

†TERMAN, LEWIS MADISON (123) 761 Dolores* (PA 6328)
Professor of Psychology

A.B., Indiana, 1902, A.M., 1903; Ph.D., Clark University, 1905; LL.D., Indiana, 1929. Fellow in Psychology and Education, Clark University, 1903–5; Principal of High School, San Bernardino, 1905–6; Head of Department of Child Study and Pedagogy, Los Angeles State Normal School, 1906–10; Lecturer in Education, Indiana University, Summer Session, 1909, University of Washington, Summer Session, 1912, New York University, Summer Session, 1916, Columbia University, Summer Session, 1917; Major, Division of Psychology, Surgeon General's Office, Washington (D.C.), 1918. At Stanford since 1910.

†THOMAS, EARL CHARLES (123) 211 Middlefield, P* (PA 6929)
Associate Professor of Civil Engineering

A.B., Stanford, 1914. Instructor in Railroad Engineering, A.E.F. University, Beaune, France, 1919. At Stanford since 1920.

THOMPSON, ELBERT NEVIUS SEBRING (4) 565 Salvatierra-*1081*
Acting Professor of English

A.B., Yale, 1900; Ph.D., Yale, 1903. Instructor in English, Lehigh University, 1903–6; Instructor in English, Yale, 1906–9; Assistant Professor of English, State University of Iowa, 1909–14, Associate Professor, 1914–20, Professor, since 1920.

†THOMPSON, WALTER (1234) 121 Castilleja, P* (PA 6380)
Associate Professor of Political Science

A.B., McPherson College, 1912; A.M., University of Kansas, 1913; Ph.D., University of Wisconsin, 1921. Fellow in Sociology, University of Kansas, 1912–13; Scholar in Political Science, University of Wisconsin, 1915–16; Instructor in Political Science and Economics, Hibbing Junior College, 1916–17, 1919–20; Graduate Student, University of Chicago, 1917, Sorbonne, 1919; Assistant in Political Science, University of Wisconsin, 1920–21, Instructor, 1921–23; Assistant Superintendent of Schools, Hibbing (Minn.), 1923–25; Professor of Government, University of Oklahoma, 1925–28. At Stanford since 1928.

†THORNHILL, CLAUDE E. (1234) 339 Manzanita, P-*3006* (PA 5884)
Associate Director, School of Hygiene and Physical Education

At Stanford since 1922.

†TICKELL, FREDERICK GEORGE (123) 652 Forest, P-p (PA 6456)
Professor of Petroleum Engineering

B.S., California, 1912, E.M., 1927. Engineer at Dawson (Y.T.), for the Yukon Gold Co., 1912; Assistant in Mineralogy, University of California, 1913; Engineer and Geologist, Marin Municipal Water District, 1913; Engineer, Croesus Gold Mining and Milling Co., 1914–15; Geologist and Petroleum Engineer, Southern Pacific and Associated Oil Companies, 1916–21. At Stanford since 1921.

†TIMOSHENKO, VLADIMAR PROKOPOVICH (4) 740 Homer, P-p
Research Associate, Food Research Institute

Ph.D., Cornell University, 1927. Candidat of Economic Science, School of Economics, Polytechnic Institute, St. Petersburg, 1911; Docent, Ukranian University, Prague (Czecho-Slovakia), 1922, Associate Professor, 1923, Professor of Economic Policy, 1925; Fellow, International Education Board, Cornell University, 1926; Instructor in Business Statistics, University of Michigan, 1928; Lecturer, Department of Economics and Research Associate, Bureau of Business Research, University of Michigan, 1929. At Stanford since 1930.

TIMS, LEILA BUDD (MRS.) (1234) 104 Walnut, SF* (Fillmore 2932)
Executive Assistant, Food Research Institute

At Stanford since 1928.

†TOLMAN, CYRUS FISHER (123) 506 Mayfield-*830* (PA 7569)
Professor of Economic Geology

B.S., Chicago, 1896. Fellow in Geology, University of Chicago, 1897–98; Consulting Economic Geologist, since 1898; Professor of Geology, University of Arizona, 1905–6, Professor of Geology and Mining, 1906–12; Territorial Geologist of Arizona, 1910–12. At Stanford since 1912.

†TORREY, HARRY BEAL (123) Kingscote* (PA 3965)
Professor of Hygiene and Physical Education, Director of Student Health Service

B.S., California, 1895, M.S., 1898; Ph.D., Columbia, 1903; M.D., Cornell, 1927. Fellow in Zoölogy, Columbia, 1900–1901; Instructor, Assistant Professor, Associate Professor of Zoölogy, University of California, 1901–12; Temporary Assistant, Bureau of Fisheries (U.S.S. "Albatross"), 1906; Staff, San Diego Marine Biological Association, 1903–12; Professor of Biology, Reed College, 1912 20; Professor of Zoölogy, Professor of Experimental Biology, Chairman Department of Medicine, University of Oregon, 1920–25; Consultant, American Social Hygiene Association, 1926–28; Cornell University Medical College Clinic, 1927–28. At Stanford since 1928

†TOWNE, EDWARD BANCROFT (123) 2629 Pierce, SF-sf (Fillmore 3270)
Associate Clinical Professor of Surgery

A.B., Harvard, 1906, M.D., 1913. Surgical House Officer, Peter Bent Brigham Hospital, Boston, 1913–14, Assistant Resident Surgeon, 1914–15; Honorary Medical Officer, Royal Army Medical Corps, France, 1915–16; Voluntary Assistant, Mayo Clinic, 1916–17; Assistant Resident Surgeon, Brigham Hospital, and Assistant in Surgery, Harvard Medical School, 1917; Lieutenant, Captain, and Major, Medical Corps, U.S.A., A.E.F., 1917–19. At Stanford since 1919.

†TOWNLEY, SIDNEY DEAN (123) 661 Cabrillo* (PA 4218)
Professor of Astronomy and Geodesy

B.S., Wisconsin, 1890, M.S., 1892; D.Sc., Michigan, 1897. Fellow in Astronomy, University of Wisconsin, 1890–91, Assistant in Astronomy and Mathematics, 1891–

92; Hearst Fellow in Astronomy, University of California (Lick Observatory), 1892–93; Instructor in Astronomy, University of Michigan, 1893 95, 1896–98; Student, Universities of Berlin and Munich, 1895–96; Instructor in Practical Astronomy, University of California, 1898–1903, Lecturer in Astronomy, 1904–7; Astronomer in charge of International Latitude Observatory, 1903–7; Visiting Lecturer in Astronomy, Harvard University, 1925–26. At Stanford since 1907.

†TREAT, PAYSON JACKSON (123) — 750 Dolores-*97* (PA 5527)
Professor of History

A.B., Wesleyan, 1900; A.M., Columbia, 1903; Ph.D., Stanford, 1910. Instructor in History, Barnard School, New York City, 1900–1903; Graduate Student, Stanford University, 1903–5; Research Student in Far East, 1906–7; Instructor in Government, Harvard University, 1908–9; Lecturer in Political Science, University of California, Second Semester, 1915–16; Shaw Lecturer, Johns Hopkins University, 1917; Visiting Professor, Columbia University, Spring Session, 1929, University of California, Summer Session, 1929. At Stanford since 1905.

TRUE, HELEN ELLA (1234) — 332 Forest, P* (PA 21729)
Secretary to the President

A.B., Mt. Holyoke, 1905. At Stanford since 1914.

TURRENTINE, LOWELL (123) — 770 Santa Ynez* (PA 4738)
Associate Professor of Law

A.B., Princeton, 1917; LL.B., Harvard, 1922. Research Fellow (Law), Harvard, 1928–29. At Stanford since 1929.

†TWENHOFEL, WILLIAM HENRY (4) — 613 Salvatierra* (PA 6835)
Acting Professor of Geology

A.B., Yale, 1908, A.M., 1910, Ph.D., 1912. Assistant Professor of Geology, Kansas, 1910–13, Associate Professor, 1913–16; State Geologist of Kansas, 1915–16; Associate Professor of Geology, Wisconsin, 1916–21, Professor, since 1921.

†USPENSKY, JAMES VICTOR (123) — 243 Everett, P-p (PA 3957)
Acting Professor of Mathematics

Graduate, University of St. Petersburg, 1906, Ph.D., 1910. Assistant Professor of Mathematics, St. Petersburg University for Women, 1911; Privat-docent, University of St. Petersburg, 1912–15, Professor, 1915–23; Member, Russian Academy of Sciences, since 1921; Visiting Professor of Mathematics, Carleton College, 1926–27; Professorial Lecturer, University of Minnesota, Summer Session, 1929.

†VAN PATTEN, NATHAN (1234) — 579 Alvarado* (PA 3517)
Director of University Libraries

Fellow, Library Association (United Kingdom); Librarian, Wolcott Gibbs Library, College of the City of New York, 1917–20; Reference Librarian, Massachusetts Institute of Technology, 1920–21, Assistant Librarian, 1921–23; Chief Librarian, Queen's University, 1923–27; Lecturer, Library School, McGill University, 1927. At Stanford since 1927.

VAN RYSSELBERGE, PIERRE JEAN (234) — *222* Stanford Union-*1188* [(PA 3121)
Instructor in Chemistry

Engineer, Brussels, 1927; A.M., Stanford, 1928, Ph.D., 1929. Fellow of the Commission for Relief in Belgium, Stanford, 1927–29. At Stanford since 1929.

†VERNIER, CHESTER GARFIELD (1234) — 679 Mirada-*1425* (PA 7922)
Professor of Law

A.B., Butler College, 1903; J.D., Chicago, 1907. Graduate Scholar, University of Chicago, 1904–5; Instructor in Law, Indiana University, 1907–8; Professor of Law, University of Nebraska, 1908–10, Indiana University, 1909–11, University of Illinois, 1911–16; Lecturer in Law, University of Chicago, Summer Quarters, 1911, 1912, University of Michigan, Summer Session, 1914. At Stanford since 1916.

†VIOLETTE, HOMER NEWTON (123) — 434 Kingsley, P-p
Instructor in Anatomy

A.B., Louisiana State University, 1925. Assistant in Zoölogy, Yale, 1926–28. At Stanford since 1929.

†VonGeldern, Hans (123) 2123 Bay, SF-sf (Fillmore 7951)
Assistant Clinical Professor of Obstetrics and Gynecology

A.B., University of California, 1916; M.D., Stanford, 1920. Senior Interne, Obstetrics and Gynecology, Lane Hospital, 1920–21, Resident, 1921–22; Assistant Visiting Obstetrician and Gynecologist, San Francisco Hospital, since 1921. At Stanford since 1921.

Walton, Albert (4) 147 Emerson, P-p (PA 4037)
Acting Instructor in Psychology

M.E., Cornell, 1902; M.S., University of Washington, 1929.

†Warner, Glenn Scobey (123) 175 Madroño, P-p (PA 7837)
Director of Football

LL.B., Cornell University, 1894. At Stanford since 1922.

Washington, Lawrence (123) 544 Lowell, P* (PA 21806)
Instructor in Mechanical Engineering

B.S., Massachusetts Institute of Technology, 1922. News Editor of *Power*, McGraw-Hill Publishing Co., 1922–23; Engineer with Griscom-Russell Co., New York, 1923–25; Engineer with Northern States Power Co., Minneapolis (Minn.), 1925–27; Instructor in Mechanical Engineering, University of Minnesota, 1927–28, Lehigh University, 1928–29. At Stanford since 1929.

†Way, Stuart C. (1234) 768 Forty-seventh Ave., SF-sf (Bayview 1132)
Associate Clinical Professor of Medicine (Cutaneous Diseases)

B.S., Wake Forest, 1917; M.D., University of Louisville, 1919. Interne, Louisville City Hospital, 1919–20; Rudolph Virchow Krankenhaus, Hautklinik, Berlin, 1922; Assistant Visiting Dermatologist, San Francisco Hospital, 1924; Postgraduate study, University of Berlin, Hautklinik, 1925; Assistant, Dermatologische Klinik, University of Bonn, 1925–26; Clinique pour Dermatologie et Syphiligraphie, Hôpital St. Louis, Paris, 1926; University of Edinburgh Skin Clinic and the Royal College of Physicians, Department of Pathology, Edinburgh, 1926–27; Hautklinik, Allgemeines Krankenhaus, Vienna, 1927. At Stanford, 1923–25, and since 1927.

†Weber, George Minch (1234) 730 Santa Maria (PA 3903)
Research Associate, Food Research Institute

A.B., George Washington University, 1922; M.B.A., Harvard, 1926. Special Expert, U.S. Tariff Commission, 1919–22; Statistician, Institute of Economics, Washington (D.C.), 1922–24; Associate Professor, School of Business Administration, University of Texas, 1926–27; Professor, School of Business Administration, University of Oregon, 1927–28. At Stanford since 1928.

†Webster, David Locke (123) 576 Gerona (PA 4629)
Professor of Physics

A.B., Harvard, 1910, Ph.D., 1913. Assistant in Mathematics, Harvard University, 1909–10, Instructor, 1910–14, Assistant in Physics, 1911–15, Instructor, 1915–17; Assistant Professor of Physics, University of Michigan, 1917; First Lieutenant, Science and Research Division, A.S.S.R.C., later B.A.P., 1917–18, Captain, 1918; Assistant Professor of Physics, Massachusetts Institute of Technology, 1919–20. At Stanford since 1920.

Wedel, Olivia Amor (1) 340 Embarcadero, P-p (PA 6783)
Cataloguer, Library

At Stanford since 1925.

Wegner, Walter William (123) 12 Stanford Union-*1251* (PA 3121)
Assistant Professor of Civil Engineering

A.B., Stanford, 1922. At Stanford since 1924.

†Wells, James Bertrand (123) 846 Lytton, P-p (PA 6455)
Associate Professor of Civil Engineering

A.B., Stanford, 1911. Draftsman and Surveyor, Standard Oil Company, 1911–12, Engineer, 1912–17; U.S. Army, 1917–18; Structural Engineer, Standard Oil Company, 1918–21, in charge of Structural Designing, Engineering Department, 1921–28. At Stanford since 1928.

†Weymouth, Frank Walter (123) 517 Salvatierra-*96*
Associate Professor of Physiology

A.B., Stanford, 1909, A.M., 1911, Ph.D., 1923. Assistant in Physiology, Johns Hopkins University, 1912–13. At Stanford since 1910.

†Whitaker, Albert Conser (123) 544 Alvarado-*995* (PA 6573)
Professor of Economics

A.B., Stanford, 1899; Ph.D., Columbia, 1904. Fellow in Economics, Columbia University, 1900–1901; Student, University of Berlin, 1901; Lecturer in Economics and Social Science, Columbia University, 1906–7; Lecturer in Economics, University of California, Summer Sessions, 1906, 1911, 1924; Acting Professor of Economics, University of Chicago, second half of 1911–12, and 1912–13. At Stanford since 1902.

Whittern, Jessie Dunten (Mrs.) (1234) 219 Hawthorne, P-*3001*
Assistant Editor, University Press [(PA 21745)

Head Proofreader, University of Chicago Press, 1911–18, Assistant Editor, 1919–25. At Stanford since 1925.

†Whittier, Clarke Butler (123) Santa Cruz Ave., Menlo Heights-*890*
Professor of Law [(PA 5042)

A.B., Stanford, 1893; LL.B., Harvard, 1896. Attorney at Law, Los Angeles, 1895–96; Student, Stanford University, 1896–97, Instructor in Law, 1897–99, Assistant Professor, 1899–1900, Associate Professor, 1900–1902; Professor of Law, University of Chicago, 1902–14. At Stanford, 1897–1902, and since 1915.

Wickes, Florence (1234) 519 Webster, SF-sf (Underhill 6152)
Reference Librarian, Lane Medical Library

At Stanford since 1918.

Wickizer, Vernon Dale (123) 686 Lasuen (PA 5967)
Instructor in Business Organization (Graduate School of Business)

Graduate, U.S. Naval Academy, 1925; M.B.A., Stanford, 1929. Ensign, U.S. Navy, 1925–27; Research Staff, Federal Reserve Bank of San Francisco, 1929. At Stanford since 1929.

†Wiedmann, Milton Laurence (123) 428 Guinda, P-*2637* (PA 5919)
Instructor in Physics

A.B., Stanford, 1925, Engineer, 1926. At Stanford since 1925.

†Wiggins, Ira Loren (123) 744 Bowdoin, M* (PA 7881)
Assistant Professor of Botany, and Associate Curator, Dudley Herbarium

A.B., Occidental, 1922; A.M., Stanford, 1925, Ph.D., 1930. Instructor in Botany, Occidental, 1925–27, Assistant Professor of Botany, 1927–March 1929; University Fellow in Botany, Stanford, 1927–29. At Stanford since 1929.

†Wight, William Franklin (123) Matadero, M-Box 775, p (PA 5053)
Lecturer in Botany

B.S., Michigan State College, 1894; A.B., Stanford, 1899, A.M., 1900. Assistant in Botany, Stanford, 1899–1900; Assistant in Systematic Botany, U.S. Department of Agriculture, 1900–1903, Assistant Botanist, 1903–12; Inspector General, de la Sección Estaciones Experimentales, Argentine Republic, 1912; Agricultural Explorer in Chile, Peru, and Bolivia, U.S. Department of Agriculture, 1913, Associate Botanist, 1913–28, Botanist, 1928.

†Wilbur, Blake Colburn (23) 1492 Emerson, P-p (PA 8593)
Clinical Instructor in Surgery

A.B., Stanford, 1922; M.D., Harvard, 1925. Medical Resident, Huntington Memorial Hospital, Boston, 1925; Surgical Interne, Presbyterian Hospital, New York City, 1926–27; Special Student, Mayo Clinic, 1928; Visiting Surgeon, Southern Pacific General Hospital, San Francisco, 1928–29; Consulting Surgeon, Southern Pacific Hospital, since 1930. At Stanford since 1930.

[†Wilbur, Ray Lyman — Lagunita Knoll* (PA 4646)
President of the University]

A.B., Stanford, 1896, A.M., 1897; M.D., Cooper Medical College, 1899; LL.D., California, 1919, Arizona, 1919, Pennsylvania, 1925, New Mexico, 1928, Pittsburgh, 1929, Chicago, 1930, Duke, 1930, Maryland, 1930, Princeton, 1930; Sc.D., Syracuse, 1924; Hon. M.A., Hahnemann Medical College of Philadelphia, 1930. Assistant in Physiology, Stanford University, 1894–96, Instructor, 1896–97; Lecturer and Demonstrator in Physiology, Cooper Medical College, 1899–1900; Assistant Professor, Stanford, 1900–1903; Professor of Medicine, and Dean of the Stanford School of Medicine, 1909–16. At Stanford, 1894–97, 1900–1903, and since 1909.

†Wildman, Murray Shipley (1) — 668 Cabrillo* (PA 21777)
Professor of Economics

A.B., Earlham, 1893; Ph.D., Chicago, 1904. Professor of History and Economics, Central College (Mo.), 1904–5; Instructor in Economics, University of Missouri, 1905–6, Assistant Professor, 1906–8; Acting Assistant Professor, University of Chicago, Summer Quarter, 1909; Assistant Professor of Economics and Commerce, Northwestern University, 1909 11, Professor, 1911–12. At Stanford since 1912.

Williams, Edith Baker (123) — 513 Salvatierra-*2794* (PA 8953)
Instructor in Physical Education

B.S., Elmira College, 1927. Certificate, Department of Hygiene and Physical Education, Wellesley, 1929. At Stanford since 1929.

Williams, Everett Charles (123) — 14 Stanford Union* (PA 3121)
Associate Professor of Military Science and Tactics

Graduate, Field Artillery School (Fort Sill, Okla.), 1926, Advanced Course, 1929. Instructor, Field Artillery School (Fort Sill, Okla.), 1917–19, 1926–29. Captain, Field Artillery, U.S. Army. At Stanford since 1929.

†Willis, Robin (3) — 225 Lincoln, P-p (PA 5304)
Acting Assistant Professor of Geology

A.B., Stanford, 1920, A.M., 1922, Ph.D., 1924. Instructor in Geology, Princeton University, 1922–25.

Winter, Helen Adelaide (1234) — 2112 Leavenworth, SF-sf
Secretary to Dean, School of Medicine — [(Graystone 5359)

At Stanford since 1929.

Winterburn, John Charles (123) — 217 Madroño, P-*991* (PA 21675)
Assistant Director, School of Hygiene and Physical Education

B.S., University of Pittsburgh, 1923. Director of Athletics, Donora (Pa.) Schools, 1923–24; Instructor in Physical Education and Major Sports, San Mateo Union High School, 1924–25; Director of Football and Basketball, Santa Ana Polytechnic High School, 1925–26. At Stanford since 1926.

†Winters, Arthur Yvor (123) — 607 Oregon, P-RFD 1, Box 286, p
Instructor in English — [(PA 3852)

A.B., Colorado, 1925, A.M., 1925. Instructor in Romance Languages, University of Idaho, 1925–27; Graduate Student, Stanford, 1927–28. At Stanford since 1928.

†Wolf, Carl Brandt (123) — 744 Bowdoin, M* (PA 7881)
Acting Instructor in Biology

A.B., Occidental, 1926; A.M., Stanford, 1927.

†Wolfsohn, Julian Mast (123) — 1800 Gough, SF-sf (Ordway 3976)
Associate Clinical Professor of Medicine (Neurology)

A.B., University of California, 1905, M.S., 1907; M.D., Johns Hopkins University Medical School, 1911. Research Assistant, Herzstein Laboratory, University of California, 1906–7; Medical House Officer, Johns Hopkins Hospital, 1911–12; Major, M.C., U.S.A., May 1917 to September 1919. At Stanford since 1913.

†Wolter, Harry Meiggs (1234) — 692 Mirada (PA 5729)
Director of Baseball

At Stanford since 1923.

[†Wood, Casey Albert 634 Mirada
Lecturer in Zoölogy (Ornithology)]

C.M., M.D., University of Bishop's College, 1877, D.C.L., 1903; C.M., M.D., McGill University, 1906, LL.D., 1921. Professor of Chemistry and Pathology, University of Bishop's College, 1878–85; Student, Berlin, Vienna, Paris, London, 1887–89; Professor of Ophthalmology, Chicago Medical School, 1890; Professor of Ophthalmology, College of Physicians and Surgeons, Chicago, 1898–1906; Professor of Ophthalmology, Northwestern University, 1906–8; now Emeritus Professor, University of Illinois College of Medicine; Colonel, M.R.C., U.S.A., 1920; Hon. Curator of Birds, Smithsonian Institution.

†Wood, Granville (234) 360 Leland, P* (PA 8697)
Acting Assistant Professor of Hygiene and Physical Education

LL.B., Stanford, 1913, A.B., 1920, M.D., 1924.

†Woolsey, Chester Howard (123) 2220 Sacramento, SF-sf
Clinical Instructor in Surgery (Genito-Urinary) [(Fillmore 0941)

B.S., California, 1895, M.D., 1901. Assistant to Chair of Clinical Medicine, University of California, 1902–6; State Bacteriologist, California, 1903–4; Assistant to Chair of Genito-Urinary Surgery, Cooper Medical College, 1911–12. At Stanford since 1912.

†Working, Holbrook (1234) 2351 Ramona, P* (PA 8445)
Economist, Food Research Institute

A.B., Denver, 1915; A.M. Cornell, 1919; Ph.D., Wisconsin, 1921. Instructor in Economics, Cornell, 1916–17, 1919; Fellow in Economics, Wisconsin, 1919–20; Assistant Professor of Agricultural Economics, Minnesota, 1920–23, Associate Professor, 1923–25; Acting Professor of Economics, University of Chicago, Summer Quarter, 1928. At Stanford since 1925.

†Wright, Wallace (123) 520 Cowper, P-*1604* (PA 4763)
Instructor in Economics

A.B., Dartmouth, 1919; A.M., Stanford, 1924, Ph.D., Stanford, 1930. Instructor in Economics, Dartmouth, 1921–23; Food Research Fellow, Stanford, 1923–24, Assistant in Instruction, Economics, 1925–27, Acting Instructor, Summer Quarter, 1926. At Stanford since 1923.

†Wyckoff, Harry Alphonso (123) 417 Oakland, Oakland-o
Associate Professor of Medicine [(Glencort 2859)

A.B., Stanford, 1907, M.D., 1916. Head of Department of Physical Education, Los Angeles High Schools, 1907–12; Bacteriologist, San Francisco Board of Health Laboratories, 1917; Pathologist, Napa State Hospital, 1918. At Stanford since 1919.

[†Yerington, Henry Herbert 1550 Middlefield, P-p (PA 3460)
Associate Clinical Professor of Pediatrics]

M.D., Columbia University, 1908. Student, Stanford University, 1900–1904, Bellevue Hospital, New York, 1909–10; House Physician, Pediatric Service, Bellevue Hospital, 1909–10; Instructor in Pediatrics, Cooper Medical College, 1910–11; Visiting Pediatrician, San Francisco Hospital; Assistant, Visiting Staff, Children's Hospital, San Francisco. At Stanford since 1913.

†Yntema, Theodore Otte (123) 593 Salvatierra (PA 5843)
Acting Associate Professor of Statistics (Graduate School of Business)

A.B., Hope College, 1921; A.M. (Chemistry), Illinois, 1922; C.P.A., Illinois, 1924; A.M. (Commerce), Chicago, 1925. Instructor in Accounting, Chicago, 1923–26; Student, Harvard, 1926–27; Assistant Professor of Accounting, Chicago, 1926–28, Assistant Professor of Statistics, 1928–29, Associate Professor of Statistics, since 1929.

Yost, Mary (1234) 532 Lasuen-*934* (PA 6624)
Dean of Women, and Lecturer in English

A.B., Vassar, 1904, A.M., 1912; Ph.D., Michigan, 1917. Graduate Scholar, Vassar College, 1904–5; Assistant in English, Wellesley College, 1906–7; Instructor in

English, Vassar College, 1907–13; Fellow, University of Michigan, 1913–15; Assistant Professor, Vassar College, 1915–21; Reader, College Entrance Examination Board, 1912–18, Head Reader and Examiner, 1918–21. At Stanford since 1921.

YOUNG, STEWART WOODFORD (123) Santa Cruz Ave., Menlo Heights*
Professor of Physical Chemistry

B.S., Cornell, 1890. Assistant in Chemistry, Cornell University, 1890–91; Instructor in Chemistry, Swarthmore College, 1891–93. At Stanford since 1893.

ZAPOLEON, LOUIS B. (1234) Menlo Heights-*148* (PA 21771)
Economist, Food Research Institute

U.S. Department of Agriculture, 1909–16; Agricultural Economist and Chief, Division of Agricultural Products and Provisions, U.S. Tariff Commission, 1917–25; served as Expert, Ways and Means and Senate Finance Committees, 1921–22. At Stanford since 1925.

ASSISTANTS IN INSTRUCTION AND RESEARCH

†Anderson, Oscar Albin, Education (4) 2735 Cowper, P-*1702* (PA 6386)

A.B., Cornell College, 1921; A.M., Stanford, 1929. Athletic Director, Iowa State Soldiers Orphans Home, 1920–22; Teacher, Globe (Ariz.) High School, 1922–24; Executive of Apache District, Boy Scouts of America, 1924; Principal, Superior (Ariz.) High School, 1924–25; Principal, Mexia (Texas) High School, 1926–28; Assistant, Graduate School of Business, Stanford, 1929–30; Cubberley Fellow in School Administration, Stanford, 1929–30.

†Anderson, Virgil A., English (Public Speaking) (1234) 43 Woodland, P* (PA 5664)

A.B., Willamette University, 1923.

Azevedo, Joseph Leo, Jr., Research Assistant, Bacteriology (1) 345 High, P-p
A.B., Stanford, 1929.

Bardwell, Kathleen (Mrs.), Research Assistant, Physiology (123)
328 Churchill, P* (PA 8140)

Barker, Horace Albert, Physics (12), and Chemistry (1) 633 Hamilton, P-p (PA 3874)

A.B., Stanford, 1929.

Barker, Wallace Woodward, Romanic Languages (123) 524 Middlefield, P-p (PA 3777)

A.B., Harvard, 1905.

†Barnett, Charles Wentworth, Medicine (Medical Clinic) (1234)
2300 Webster, SF-sf (Walnut 6943)

A.B., Stanford, 1923; M.D., Harvard, 1927. Interne, Lane and Stanford Hospitals, 1927–28, Assistant Resident in Medicine, 1928–29.

Bayer, Leona Mayer (Mrs.), Medicine (1234) 1652 Taylor, SF-sf (Prospect 5894)

A.B., Stanford, 1923, M.D., 1928. Resident in Medicine, Cook County Hospital, Chicago, 1928–29.

Bird, Kenneth Leslie, Chemistry (1) 656 Bryant, P-*707* (PA 5019)

A.B., Drake, 1921; M.S., Iowa State College, 1923.

deBivort de la Saudée, Hervey G., Civil Engineering (3) Stanford Univ.-*1574*

A.B., Stanford, 1928.

Blaine, Gertrude, Physical Education (Roble Gym.) (3)
Embarcadero and Louis, P-R.F.D., Box 197A, p (PA 3730)

Boden, William Estey, Civil Engineering (12) 313 Sequoia-*2038*
A.B., Stanford, 1928, Engineer, 1930.

Bowes, Ruth Garland (Mrs.), Pediatrics (1234) 2535 Laguna, SF-sf (Fillmore 1883)
A.B., Stanford, 1920, M.D., 1925.

†Brady, Joseph George, Medicine (Tuberculosis) (234)
466 Flood Bldg., SF-sf (Sutter 0098)
M.D., Cooper Medical College, 1902.

Bravinder, Kenneth Mason, Geology (4) 557 Lasuen-*1335*
A.B., Southern California, 1930.

Brinkerhoff, David Emillius, Surgery (Ear, Nose, Throat) (1234)
2207 Clay, SF-sf (Fillmore 8952)
A.B., Southern California, 1923; M.D., Stanford, 1929.

†Brown, Leland Hermon, Electrical Engineering (23) 525 Guinda, P-p (PA 4031)
A.B., Stanford, 1922, Engineer, 1924, Ph.D., 1930.

Bunyan, James, Research Assistant, Russian Revolution Institute (Hoover War Library) (1234) Stanford Union
A.M., Columbia, 1919.

†Burkhard, William George, Medicine (Tuberculosis) (1234)
907 Valencia, SF-sf (Mission 0094)
A.B., Stanford, 1923, M.D., 1927.

Caldwell, Philip Graham, Electrical Engineering (4) 313 Union
A.B., Stanford, 1929.

†Calkins, Robert Deblois, Jr., Economics (1) 626 Homer, P-p
B.S., William and Mary, 1925; A.M., Stanford, 1929.

Carley, Leon Alanson, Debating (12) 230 Stanford Union-*2665* (PA 3121)
A.B., Stanford, 1929.

Chapin, Leland Taylor, English (Public Speaking) (1234)
8 Stanford Union-*711* (PA 3121)
A.B., Willamette, 1925. Instructor in English and Public Speaking, Lingnan University, Canton (China), 1925–28; Instructor in Public Speaking, Willamette, 1928–29.

†Chapman, George Eric, Obstetrics and Gynecology (1234) 490 Post, SF-sf (Garfield 4458)
M.D., C.M., Trinity (Toronto), 1903. Captain, C.A.M.C., Canada, 1917–19.

Chenoweth, Clyde Garfield, Economics (1) 431 Wellesley, M-*591*
A.B., California, 1922, A.M., 1923.

†Chope, Harold DeLos, Public Health and Preventive Medicine (1)
Lane Hospital, SF-sf (West 8000)
A.B., Stanford, 1926.

Clark, John Charles, Research Assistant, Physics (12) 205 Stanford Union* (PA 3121)
A.B., Ohio Wesleyan, 1925; S.M., Chicago, 1927. Fellow in Physics, Chicago, 1925–26; Assistant in Physics, 1926–27; Instructor in Physics, Lehigh University, 1927–29.

†Coblentz, Lambert B., Assistant Lecturer, Medicine (San Francisco Hospital) (1234) 516 Sutter, SF-sf (Sutter 3878)
M.D., Cooper Medical College, 1904.

Cooley, Chester Lynn, Obstetrics and Gynecology (Pre-Natal Clinic) (3) Stanford Medical School, SF-sf
A.B., Stanford, 1924, M.D., 1928.

Cope, Danella Straup (Mrs.), Research Assistant, Jacques Loeb Laboratory (1234) Hopkins Marine Station, Pacific Grove-pg
A.B., Utah, 1923; A.M., Stanford, 1926, Ph.D., 1930.

Cramer, Sophia M., Education (1) 1028 Bryant, P-p (PA 21221)
A.B., Stanford, 1904.

†Daugherty, Lyman Harry, Biology (3) University Hotel, P* (PA 5741)
A.B., Stanford, 1924, A.M., 1925.

Dayton, John Gordon, Chemistry (123) 555 Encina-*1256*
A.B., Stanford, 1930.

Detrick, Helen Hopkins (Mrs.), Research Assistant, Medicine (Neuropsychiatry) (1234) 2055 California, SF-sf (Walnut 6680)
A.B., California, 1920, A.M., 1921; M.D., Johns Hopkins, 1925.

Donovan, Monica, Medicine (Radiology) (123) 450 Sutter, SF-sf (Douglas 5026)
A.B., College of the Pacific, 1918; M.D., Stanford, 1921.

Drury, Marion Overholser, Civil Engineering (3) 326 Waverley, P-p
B.S., Otterbein, 1926.

†Duncan, Hiram B., Assistant Lecturer, Surgery (Orthopedics) (1234) 969 Flood Bldg., SF-sf (Garfield 6767)
M.D., St. Louis University, 1912. Interne, St. Mary's Hospital, and French Hospital, 1912–13; Medical Corps, U.S.N., 1917–21; Genito-Urinary Clinic, San Francisco Polyclinic, 1914–17, Surgical Clinic, since 1921.

Duniway, Benjamin Cushing, Debating (12), and Law (4) 281 Embarcadero, P-*2591* (PA 5856)
A.B., Carleton, 1928.

Eaton, Bourne Goodridge, Research Assistant, Physics (123) 543 Encina-*1205* (PA 3121)
A.B., Stanford, 1929.

Ely, Bernard Colean, Political Science (1) 117 Cowper, P-*996*
A.B., Stanford, 1929.

†Empey, Lucas Wistar, Pediatrics (1234) 206 Medico-Dental Bldg., SJ-sj (Columbia 2680)
A.B., Stanford, 1924, M.D., 1928.

Engwicht, Harry, Physics (123) 405 N. 3d, SJ-sj (Ballard 2007W)
A.B., Stanford, 1926.

†Fanning, John L., Dermatology (1234) 712 Medico-Dental Bldg., Sacramento-s
M.D., College of Physicians and Surgeons, 1918. Basic course in Dermatology, Graduate School, University of Pennsylvania, 1927–28.

Farnsworth, Helen Cherington (Mrs.), Research Assistant, Food Research Institute (1234) 851 Homer, P* (PA 8155)
B.S., Ohio State University, 1924, A.M., 1924; Ph.D., Stanford, 1930.

Fetter, Klara, Research Assistant, Russian Revolution Institute (Hoover War Library) (1234) 225 Addison, P*

Graduate, Royal Hungarian University (Budapest), 1922, A.M., 1922, Ph.D., 1923. Instructor in Hungarian, University of Pittsburgh, 1927–29.

Field, Sally Miller (Mrs.), Biology and Physiology (123) 648 Alvarado (PA 8191)

A.B., Stanford, 1929.

Fletcher, Charles D., Medicine (Tuberculosis) (San Francisco Hospital) (1234) 450 Sutter, SF-sf (Davenport 1810)

A.B., University of California, 1923, M.D., 1927. Interne, San Francisco Hospital, 1926–27; Assistant Resident in Neurology and Resident in Tuberculosis, Montefiore Hospital, New York, 1927–28.

Fletcher, Russell, Surgery (Ear, Nose, Throat) (1234) 490 Post, SF-sf (Kearny 6625)

A.B., California, 1922; M.D., Harvard, 1926.

Foster, Bruce Ellsworth, Physics (123) 204 Stanford Union* (PA 3121)

A.B, Colorado College, 1927; A.M., University of Oregon, 1929.

†Fox, Denis Llewellyn, Chemistry (123) 544 Bowdoin, M

A.B., California, 1925.

Galliher, Edgar Wayne, Geology (4) Ventura-v

A.B., Stanford, 1929.

Gankin, Olga Hess (Mrs.), Research Assistant, Russian Revolution Institute (Hoover War Library) (1234) 769 Green, San Bruno*

Ph.B., Brown, 1925, A.M., 1926; Ph.D., Chicago, 1929.

Garnjobst, Laura Flora, Zoölogy (1) 513 Salvatierra-*1034* (PA 8953)

B.S., Oregon State Agricultural College, 1922; A.M., Stanford, 1927.

Gebhardt, Louis Philipp, Jr., Research Assistant, Bacteriology (1234) 633 Seneca, P-p (PA 7719)

A.B., Stanford, 1929.

Gibbs, Helen M., English (23) 565 Salvatierra-*2544* (PA 8392)

A.B., Sioux Falls, 1927.

†Giese, Arthur Charles, Biology (123) 525 Bowdoin, M-*1061*

S.B., Chicago, 1927. Teaching Fellow in Zoölogy, University of California, 1928–29.

Giese, Raina I. (Mrs.), Biology (2) 525 Bowdoin, M-*1061*

S.B., Chicago, 1927.

Gillespie, Doris Kildale (Mrs.), Botany (123) 739 Bryant, P-*922*

A.B., Stanford, 1926, A.M., 1927.

†Goldman, Samuel A., Surgery (Genito-Urinary) (1234) 1275 Flood Bldg., SF-sf (Douglas 4332)

Ph.G., College of Physicians and Surgeons, California, 1903, M.D., 1907. Interne, Sacramento County Hospital, Sacramento, 1907–8; Assistant, Medical Clinic, San Francisco Polyclinic, 1913–14; Assistant, Genito-Urinary Clinic, San Francisco Polyclinic, 1914–17, Chief since 1917; Public Lecturer for Bureau of Social Hygiene, California State Board of Health, 1917–19.

†Gorham, Curtis Byron, Surgery (Ear, Nose, and Throat) (1234) 2300 Webster, SF-sf (Fillmore 4645)

A.B., Stanford, 1924, M.D., 1928.

Guerrero, Lina Jacob (Mrs.), Education (2) 1140 Greenwood, P-p (PA 4370)

A.B., Stanford, 1914, A.M., 1925.

†Gurchot, Charles, Research Assistant, Pharmacology and Neurology (1234) 421 Barriolhet, San Mateo-sm (SM 4652J)
B.S., College of the City of New York, 1921; Ph.D., Cornell University, 1925.

†Gwinn, Charles Dudley, Dental Clinic (1234) 490 Post, SF-sf (Kearny 4895)
D.D.S., California, 1917. Lieutenant, Dental Corps, U.S.N.R.F., 1917–19; Instructor in Extraction, Dental Department, University of California, since 1919; Visiting Dentist, French Hospital, since 1920.

Hadden, Fannie, Pediatrics (1234) 1520 California, SF-sf (Ordway 3609)
A.B., Stanford, 1917.

Hadley, Clausin Dennis, Economics (2) 2091 Main, M-Box 693, m
B.S., Oregon, 1928; M.B.A., Stanford, 1930.

†Harkleroad, Dudley H., Economics (23) 550 Kingsley, P-*2817* (PA 4410)
A.B., Stanford, 1927, LL.B., 1930.

Harvey, Lashley Grey, Political Science (123) 821 Bryant, P-p (PA 7694)
A.B., William Jewell College, 1925; A.M., Stanford, 1930.

Heaslet, Max Alfred, Mathematics (123) 3 Stanford Union-*145* (PA 3121)
A.B., Oklahoma, 1927, A.M., 1929.

†Helsley, Gordon Friedrich, Surgery (San Francisco Hospital) (1234) 800 Monterey Blvd., SF-sf (Randolph 1232)
A.B., Stanford, 1915, M.D., 1918. Assistant Physician, California State Prison, San Quentin, 1918; Physician, State Prison at Folsom, 1918–20; Surgeon, Celite Products Co., 1920–21; House Physician and Surgeon, Greenpoint Hospital, New York City, 1921–22; Student at Vienna, 1922, at Munich, 1923.

†Henderson, James Gordon, Surgery (Genito-Urinary) (1234) 2760 Sacramento, SF-sf (Fillmore 4873)
A.B., Stanford, 1921, M.D., 1925. Resident Physician, St. Francis Hospital, San Francisco, 1925–26.

Hill, Henry Eric, Civil Engineering (23) 213 Sequoia-*2393*
A.B., Stanford, 1929, Engineer, 1930.

Holmes, Otis Halbert, Jr., Economics (123) 614 Alvarado
B.S., Whitman, 1923; A.M., Columbia, 1927.

Hovey, H. Birnet, Research Assistant, Psychology (123) 240 Embarcadero, P-p
B.S., University of Utah, 1925; M.S., University of Oregon, 1927.

Howard, Lot Duncan, Anatomy (23), and Physical Education (4) 351 Homer, P-p (PA 21816)
A.B., Stanford, 1929.

Hungate, Robert Edward, Biology (2) 1425 Alma, P-p (PA 21426)
A.B., Stanford, 1929.

Hurlbut, John Bingham, Political Science (1) 219 Ramona, P-p
A.B., University of California at Los Angeles, 1928; A.M., Stanford, 1929.

†Irvine, Robert Steele, Surgery (Eye) (1234) 490 Post, SF-sf (Sutter 3598)
B.S., Nebraska, 1910, A.M., 1915; M.D., Columbia, 1914. Interne, First Surgical Division, Bellevue Hospital, 1914–16; U.S. Navy Medical Corps, 1917–19; Assistant in Otolaryngology, San Francisco Polyclinic, 1919–22; Eye, Ear, Nose, and Throat Service, South San Francisco Hospital, since 1919.

Israel, Harry Frederick, Psychology (12) 520 University, P-p
A.B., Stanford, 1927.

†Johnson, William Warner, Pathology (123) 2295 California, SF-sf (Fillmore 4758)

A.B., Hamilton, 1924; M.D., C.M., McGill, 1929.

†Johnstone, William Crane, Jr., Political Science (123) 147 Emerson, P-*849*
A.B., Denver, 1924, A.M., 1927.

Jones, Jenner Garnett, Surgery (Genito-Urinary) (1234) Lane Hospital, SF-sf (West 8000)

A.B., William Jewell College, 1923; M.D., Washington University, St. Louis, 1927. Interne, Harper Hospital, Detroit, 1927–28.

†Kaufman, Bernard, Medicine (Laguna Honda Home) (1234) 2000 Van Ness, SF-sf (Graystone 8212)

M.D., Cooper Medical, 1909.

†Kelly, E. Lowell, Research Assistant, Psychology (123) 564 University, P-*2344* (PA 7279)

B.S., Purdue, 1926; A.M., Colorado State Teachers College, 1928.

Knopp, Grace, Romanic Languages (123) 513 Salvatierra-*1163* (PA 8953)
A.B., University of Oregon, 1920; A.M., Stanford, 1930.

Lease, Leland Jacob, Research Assistant, Electrical Engineering (23) 446 Hamilton, P-p

A.B., Ohio Wesleyan, 1920.

Lechten, A. Madeleine, Romanic Languages (4) 800 Roble, MP-Box 186, mp
A.B., Stanford, 1923.

Leonard, Eileen M., Pediatrics (Children's Clinic) (1234) 760 Market, SF-sf (Douglas 3876)

A.B., California, 1917; M.D., Stanford, 1922. Resident, Pediatrics, San Francisco Hospital, 1922–23; Pediatrician, San Francisco Department of Public Health, 1923–25, San Francisco Polyclinic, since 1925.

Lewis, Warren Reed, Research Assistant, Bacteriology (4) 309 Union*

Light, Samuel E., Medicine (Dermatology) (123) 2401 Sacramento, SF-sf (Walnut 3461)

B.S., Nebraska, 1923, M.D., 1925.

Linderholm, Evelyn Bernice, Mathematics (123) 312 Partridge, MP-Box 37P, mp (PA 8690)

A.B., Stanford, 1929, A.M., 1930.

Linscott, Phyllis Mar, Physical Education (Roble Gymnasium) (1) Kingscote-*1325*

A.B., Stanford, 1929.

Lucy, Frank Allen, Chemistry (1) 460 Homer, P-p (PA 6249)
A.B., Stanford, 1929, A.M., 1930.

Lundy, Robert Floyd, Research Assistant, Food Research Institute (1234) 1226 Yosemite, SJ-*998* (Ballard 5496W)

A.B., Stanford, 1928.

McBroom, Nellis Verna, Romanic Languages (123) Perry, Menlo Heights (PA 8266)

A.B., Vassar, 1926.

McClatchie, Winifred Lovisa, Chemistry (124) 1119 Middlefield, P-p
A.B., Stanford, 1929, A.M., 1930.

McCully, Leona Hadley (Mrs.), Education (1) 1035 Bryant, P-p (PA 21349)
A.B., Indiana University, 1905; A.M., Stanford, 1928. Teacher of History, Evansville (Ill.) High School, 1905–7; Instructor in Psychology, State Teachers College, Chico, 1921–22; Counselor and Teacher of Social Studies, Palo Alto Union High School, since 1922; Acting Assistant Professor of Education, Stanford, Summer Quarters, since 1927, Assistant in Instruction, Autumn Quarters, since 1916.

McDowell, Margaret Deering, Research Assistant, Chemistry (1234) 350 Addison, P-p (PA 8337)
A.B., Stanford, 1926, A.M., 1927.

MacGregor, V. Claire, English (Public Speaking) (4) Alpha Omicron Pi-*1367*
A.B., Stanford, 1929.

McIntire, Cecelia True, Physical Education (Roble Gymnasium) (123) 671 Santa Ynez-*2213* (PA 3397)
A.B., Mills, 1927.

McNemar, Quinn, Research Assistant, Psychology (1234) 2030 Waverley, P-p (PA 5281)
A.B., Juniata, 1925.

de Madariaga, Pilar, Spanish (4) Roble
Licenciada, University of Madrid, 1928, Doctora, 1929.

Mallory, George Henry, Biology (1234) 750 Dolores-*920*
A.B., Stanford, 1920.

Marquis, Donald George, Anatomy (3) Sigma Nu-*1385*
A.B., Stanford, 1928.

Masson, Edmond Eric, Romanic Languages (12) *326* Hawthorne, P-p
A.B., Stanford, 1929.

Mathes, Mary Elizabeth, Surgery (Surgical Laboratory) (1234) Lane Hospital, SF-sf (West 8000)
A.B., Oregon, 1920; M.D., Stanford, 1928.

Matzger, Edward, Assistant Lecturer, Medicine (1234) 909 Hyde, SF-sf (Graystone 0732)
M.D., Jefferson Medical College, 1921. Associate in Research, Hooper Foundation, 1927; Visiting Physician, San Francisco Hospital, 1928.

†Matzke, David E., Surgery (1234) 350 Post, SF-sf (Garfield 0114)
B.S., Haverford, 1921; M.D., Pennsylvania, 1925. Interne, Philadelphia General Hospital, 1925–27; Resident Surgeon, Punxsutawney Hospital, 1927–28.

Mayer, Barbara Anne, Research Assistant, Psychology (123) 708 Salvatierra-*1963* (PA 21736)
A.B., Stanford, 1927.

Meadowcroft, Niel Fairhurst, Civil Engineering (13) 314 Sequoia-*3114*
A.B., Stanford, 1930.

†Medd, John Edward, Dental Clinic (234) 2285 Chestnut, SF-sf (Fillmore 1942)
D.D.S., California, 1929.

Mendelsohn, William, Research Assistant, Bacteriology (4) 300 Toyon*

Merner, Frances Sheldon (Mrs.), Research Assistant, Law (1234) 345 Forest, P* (PA 3495)
A.B., Stanford, 1922, J.D., 1924.

†Miksch, Walter P., Romanic Languages (123) 270 Kellogg, P-p (PA 7775)
A.B., Linfield College, 1926; A.M., Stanford, 1930.

Miller, Bernice Elizabeth, Research Assistant, German Revolution Institute (Hoover War Library) (12) Kappa Kappa Gamma (PA 7606)
A.B., Stanford, 1928.

Mundt, Kenneth Francis, Civil Engineering (123) 405 Sequoia-*631*
A.B., Stanford, 1929.

Murray, Janet, Research Assistant, Food Research Institute (1234) Menlo Heights-*1464* (PA 8266)
A.B., Vassar, 1926; A.M., Stanford, 1930.

Nelson, Clarence Henry, Surgery (1234) Stanford Hospital, SF-sf (West 8000)
A.B., Stanford, 1925, M.D., 1929.

Nelson, Edward Gene, Economics (23) 838 Cowper, P-*622* (PA 4966)
B.S., Southern California, 1926, A.M., 1928.

Newkirk, Katharine Andrus, Research Assistant, Political Science (1234) 575 Salvatierra-*3004* (PA 6417)
A.B., Pomona, 1923; A.M., Stanford, 1928.

†Newman, William Wise, Medicine (1234) 201 Flood Bldg., SF-sf (Garfield 0404)
A.B., Stanford, 1921, M.D., 1927.

Norberg, Raymond William, Chemistry (1) 1451 Cowper, P-*2211* (PA 3375)
A.B., Stanford, 1925, A.M., 1927.

Norvell, Oliver Wendell, Research Assistant, Biology (1234) 499a Governor's
A.B., Stanford, 1930.

Nute, J. Warren, Civil Engineering (123) 771 Hamilton, P-p
A.B., Stanford, 1930.

†Nylander, Towne Joseph, Economics (1) 645 Gilman, P-p (PA 5290)
A.B., California, 1922, A.M., 1922.

Oden, Melita H. (Mrs.), Field Assistant, Psychology (123) Saratoga-s (Saratoga 124)
A.B., Stanford, 1921.

O'Hara, Francis Paul, Surgery (San Francisco Hospital) (1234) 524 Post, SF-sf (Prospect 4400)
A.B., Stanford, 1924, M.D., 1928.

Olsen, Elwood Richard, Medicine (1234) Flood Bldg., SF-sf (Garfield 1809)
A.B., California, 1918, M.D., 1922. Resident, Mt. Zion Hospital, 1922-23; Shriners' Hospital, 1923–28; Assistant Dermatologist, Mt. Zion Hospital, 1923–27.

Osborne, Lee S., Geology (4) Ventura-v
A.B., Stanford, 1930.

†Ottinger, Millard R., Surgery (San Francisco Hospital) (1234) 516 Sutter, SF-sf (Garfield 32)
M.D., College of Physicians and Surgeons, San Francisco, 1918.

†Pace, Paul Theron, Surgery (Ear, Nose, Throat) (1234) San Francisco Hospital, SF-sf (Mission 0820)
A.B., Nebraska, 1923, B.S., 1924; M.D., Tulane University of Louisiana, 1926. House Officer in Medicine, San Francisco Hospital, 1927–28.

Patek, Sadie Dernham (Mrs.), Medicine (34) 384 Post, SF-sf (Garfield 4480)
A.B., Stanford, 1911, M.D., 1929.

Peterson, C. Emelia, Research Assistant, Public Health and Preventive Medicine (1234) 2480 Washington, SF-sf (Walnut 4450)
A.B., California, 1921, A.M., 1922. University Fellow in Bacteriology, University of California, 1922–23.

Philipson, Alice, Education (Girl Scout Work) (4) 500 Melville, P-p (PA 7947)

Pillsbury, Arthur Francis, Civil Engineering (123) 521 Encina-*1301* (PA 3121)
A.B., Stanford, 1928, Engineer, 1930.

†Porter, Clarence Chipley, Surgery (1234) 350 Post, SF-sf (Douglas 3678)
M.D., Johns Hopkins, 1918. Interne and Assistant Resident Surgeon, Palmerton Hospital, Pennsylvania, 1918–20; Assistant Resident in Gynecology, Lakeside Hospital, Cleveland, 1920–21.

Porter, John Lemoyne, Chemistry (3) 437 Encina-*1512*
B.S., Princeton, 1926.

Powell, Henry Peabody, Mathematics (1234) 402 Sequoia-*2173*
A.B., Stanford, 1928.

Preston, Ruth, Education (2) 351 Channing, P-p (PA 4078)
A.B., California, 1916. Head of English Department, Palo Alto Union High School, since 1921.

Raney, Mary Evangeline, Research Assistant, Bacteriology (1234) 555 Lytton, P-p (PA 6016)
A.B., Stanford, 1928.

Reed, Samuel Payne, Physics (123) 223 Stanford Union-*1116* (PA 3121)
A.B., San Jose State Teachers College, 1929.

†Reich, William Walter, Public Health and Preventive Medicine (123) 1007 Ordway, Berkeley-b (Thornwall 5749)
A.B., University of the Philippines, 1917, B.S., 1919; A.M., University of California, 1921, Ph.D., 1923; M.D., Stanford, 1929.

Reid, John Turner, Romanic Languages (123) 527 Homer, P-*986* (PA 3559)
A.B., Stanford, 1929.

Rempel, David Gerrard, Research Assistant, German Revolution Institute (Hoover War Library) (1234) 625 Hamilton, P-p (PA 7865)
A.B., Bluffton College, 1927; A.M., Wisconsin, 1928.

Reyes, Esteban, Medicine (Dermatology) (1234) 434A Fillmore, SF-sf (Hemlock 8478)
Ex-interne for Rosales Hospital, San Salvador, 1921–23; Ex-assistant to Chief Surgeon, Rosales Hospital, 1924; Ex-physician and Surgeon, International Railway of Central America, Division of El Salvador, 1925–26.

†Reynolds, Ralph Arthur, Medicine (Laguna Honda Home) (1234) 450 Post, SF-sf (Douglas 6751)
A.B., California, 1921, M.D., 1925. Assistant in Pediatrics, University of California, 1925–26; University of Vienna, February 1928 to April 1929; Work in Medicine and Public Health, Moscow, Leningrad, Paris, and London, April–June 1929.

Rice, Marjorie Eastman, Research Assistant, Political Science (12) Kingscote-*1366*
A.B., Stanford, 1929, A.M., 1930.

Richardson, James Wilfred, Chemistry (12) 212 S. 11th, SJ-sj (Ballard 6456J)
A.B., San Jose State Teachers College, 1929.

Ring, Douglas H., Research Assistant, Electrical Engineering (23) 213 Sequoia-*1130*
A.B., Stanford, 1929, Engineer, 1930.

†Robesky, Donald Albert, Physical Education (Football) (1) 1307 University, P-p (PA 5625)
A.B., Stanford, 1929.

Robinson, Russell Gideon, Civil Engineering (12) 511 Encina-*2488* (PA 3121)
A.B., Stanford, 1928, Engineer, 1930.

†Ruch, Floyd Leon, Psychology (123) 1221 Byron, P-p (PA 6390)
B.S., University of Oregon, 1925; A.M., Iowa, 1926.

†Ruddy, Lorenz Weir, Surgery (Ear, Nose, Throat) (1234) Lane Hospital, SF-sf (West 8000)
A.B., Stanford, 1925, M.D., 1929.

Sahyun, Melville, Chemistry (2) 611 Waverley, P-p
A.B., American University (Syria), 1916; A.M., Stanford, 1929.

†Sale, J. Judson, Surgery (Orthopedic Clinic) (1234) 490 Post, SF-sf (Kearny 3747)
M.D., Medical College of Virginia, 1917. Medical Department, U.S.N., 1917–22.

†Scarborough, Robert Alexander, Surgery (1234) Lane Hospital, SF-sf (West 8000)
B.S., Wesleyan University, 1922; M.D., Yale, 1926. Interne and Assistant Resident Surgeon, Strong Memorial Hospital, Rochester (N.Y.), 1926–28; Assistant Resident Surgeon, Lane Hospital, 1928–29, Resident Surgeon, 1929–30.

Scott, Charles Craven, Economics (123) 13 Stanford Union-*2014* (PA 3121)
A.B., Stanford, 1927, A.M., 1929.

†Scott, Raymond Robert, Surgery (1234) 2734 A St., Selma-s (Selma 105R)
A.B., Stanford, 1922, M.D., 1926. House Officer in Surgery, San Francisco Hospital, 1926–27, Resident, 1927–28; Assistant, Stanford Surgical Service, San Francisco Hospital, since 1928.

Seid, Martin J., Medicine (Chest Clinic) (1234) 555 Post, SF-sf (Prospect 7800)
M.D., Cooper Medical College, 1911.

Seward, Raymond Sanford, Physics (123) 7 Stanford Union-*501* (PA 3121)
B.S., Pomona, 1912; A.M., California, 1921.

†Sharp, Stanley Louis, German (13) Menlo Heights-*517*
A.B., Utah, 1929.

Shaw, Edward Stone, Economics (123) 33 Encina Ave., P-Box 8, p (PA 5496)
A.B., Stanford, 1929.

†Sisson, Charles Alexander, English (12) 505 Oberlin, M-*2788* (PA 21694)
A.B., University of Kansas, 1923.

Sisson, Henrietta (Mrs.), English (123) 505 Oberlin, M-*2788* (PA 21694)
A.B., University of Kansas, 1923; A.M., University of Iowa, 1928.

Skelton, Harris Rolland, Economics (2) 512 Encina
A.B., Stanford, 1929.

†Smith, Herbert Gordon, Surgery (Ophthalmology) (1234) 490 Post, SF-sf (Garfield 1867)
M.D.,C.M., McGill University, 1923, L.M.C.C., 1923. Montreal General Hospital, 1923–24; St. Luke's Hospital, New York City, 1925–26.

Snedden, Loring Bertram, Geology (4) Ventura-v
A.B., Stanford, 1930.

Snyder, Edward Eugene, Chemistry (3) 1422 Capuchino, Burlingame-b (B 3569J)
A.B., Stanford, 1930.

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B.S., Mississippi State Teachers College (Hattiesburg), 1927; A.M., Stanford, 1930.

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A.B., Oregon, 1927.

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A.B., Stanford, 1928, A.M., 1930.

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A.B., Stanford, 1917.

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A.B., University of California at Los Angeles, 1928; A.M., Stanford, 1930.

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A.B., University of Alberta, 1920, A.M., 1921.

Thomas, John Oglesby, Zoölogy (1), and Chemistry (2) Menlo Heights-*124*
A.B., Stanford, 1928.

Thomas, S. Benson, Chemistry (23) *202* Sequoia
A.B., Stanford, 1927, Engineer, 1928, Ph.D., 1930.

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A.B., University of California at Los Angeles, 1928.

Thomson, Ruth Haines (Mrs.), Research Assistant, Psychology (1234) 615 University, P-p (PA 21750)
A.B., Pacific University, 1917; A.M., Washington, 1921.

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A.B., California, 1921, M.D., 1925.

Triplett, William Robert, Research Assistant, Electrical Engineering (23) 107 Sequoia-*86*
A.B., Stanford, 1930.

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A.B., Stanford, 1924.

Van Druten, Arthur Alexander, Surgery (1234) Stanford Hospital, SF-sf (West 8000)
A.B., Stanford, 1925, M.D., 1929.

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Graduate, Smolny Institute, Petrograd, 1907; Special Student, Raevskie Kursy, 1910–11, University of Michigan, 1921–22; Editorial Office of the *Living Age*, Boston, 1922–27.

Wagener, Winfield G., Research Assistant, Electrical Engineering (23) 430 Addison, P-p (PA 5263)
B.S., California, 1928, M.S., 1929.

Wagner, Fredricka Esther, German (123) 818 Cowper, P-p (PA 4409)
A.B., Nebraska, 1929; A.M., Stanford, 1930.

Walton, Albert, Psychology (123) 147 Emerson, P-p (PA 4037)
M.E., Cornell, 1902; M.S., University of Washington, 1929.

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A.B., Stanford, 1930.

Weinsveig, Mildred J., Germanic Languages (23) 613 Salvatierra-*634* (PA 8953)
A.B., California at Los Angeles, 1929.

†Weller, Fred Ames, English (Public Speaking) and Research Assistant, Law (123) 684 Columbia, M-*2042*
A.B., State College of Washington, 1925; J.D., Stanford, 1929.

Weston, Ralph Emerson, Mathematics (4) 234 Union
A.B., Stanford, 1922.

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A.B., Stanford, 1929, A.M., 1930.

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A.B., California, 1917.

White, Marian Adele, Research Assistant, Bacteriology (1234) 195 Santa Rita, P-p (PA 21774)
A.B., Stanford, 1927.

Wildman, Mary Frances, Romanic Languages (23) 668 Cabrillo* (PA 21777)
A.B., Stanford, 1922, A.M., 1927.

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A.B., California, 1921, A.M., 1922.

Willits, John Metts, Graduate School of Business (23) Willow, P-Box 684, p
A.B., Stanford, 1925.

Wilson, Clinton, Surgery (Eye Clinic) (1234) Lane Hospital, SF-sf (West 8000)
A.B., Reed, 1922; M.D., Harvard, 1926. Johns Hopkins Hospital, 1926–29.

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A.B., St. Mary's College, 1923; A.M., Stanford, 1930.

†Wolf, Carl Brandt, Botany (4) 744 Bowdoin, M* (PA 7881)
A.B., Occidental, 1926; A.M., Stanford, 1927.

Wood, David Alvra, Pathology (1234) 409 Stanford Medical School Bldg., SF-sf (West 8000)
A.B., Stanford, 1926.

†Woodhouse, Edwin Deshler, Biology (123) 570 Amherst, M-*1210* (PA 7407)
B.S., California, 1919; A.M., Stanford, 1929.

Woolley, Eola Claire, Biology (1) 616 Forest, P-p
A.B., Tulane University, 1926; A.M., Stanford, 1928, Ph.D., 1930.

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A.B., Oxford, 1902, A.M., 1910.

Wyman, Ada Fay, Research Assistant, Food Research Institute (1234) 326 Addison, P-*1463* (PA 21546)
A.B., California, 1925.

Zschokke, Arthur Jacob, Civil Engineering (2) 526 Forest, P-p
A.B., Stanford, 1902, Engineer, 1930.

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Adamson, Stella (Mrs.), Bacteriology (4) 1153 Stanford, M-m

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A.B., Stanford, 1930.

Ashworth, Mildred R., Summer Quarter Office (1234) 534 Forest, P* (PA 3433)

Barksdale, Julian D., Camp Manager, Geology (4) Ventura-v
A.B., Stanford, 1930.

†Barrett, Frank C., Anatomy (1234) 129 Emerson, P-p (PA 5654)

Bolin, Rolf, Assistant in Oceanography (Hopkins Marine Station) (4) Pacific Grove-pg
A.B., University of Utah, 1925; A.M., Stanford, 1929.

Boone, Thomas Harold, Bacteriology (1) 430 Forest, P-p (PA 7370)
A.B., Stanford, 1927.

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Bradshaw, Page, Publicity (1) 543 Lasuen (PA 6500)
A.B., Stanford, 1929.

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A.B., Stanford, 1929. R.N., Stanford School of Nursing, 1929.

Clark, Mabel E., Secretary, Mining Engineering (1234) 771 Hamilton, P-p (PA 8149)
A.B., Hastings, 1925.

Cottrell, Annice L. (Mrs.), Office Assistant, Graduate School of Business (123) 947 Webster, P-p (PA 4688)

Cutter, Richard Deidrich, Zoölogy (23) 627 Webster, P-p
A.B., Stanford, 1930.

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Dorcy, Doris, Stenographic Assistant, German Revolution Institute (Hoover War Library) (34) 433 Addison, P-p (PA 7356)

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Fox, Rosemary H. (Mrs.), Secretary, Germanic Languages (123) 544 Bowdoin, M-m (PA 7892)
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Golden, Edna, Bacteriology (4) Roble

Gordon, Robert Dean, Physics (123) 215 Sequoia-*1178*

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A.B., Stanford, 1929.

Groch, Marcia Eunice, Secretary, Hopkins Marine Station (1234) 104 Fountain, Pacific Grove-pg (PG 411W)

Hall, Mildred Jessica, Lecture Assistant, Chemistry (1234) 283 Selby, MP-mp (PA 21861)
A.B., Stanford, 1923, A.M., 1924.

Hamilton, Fay Dunn, Secretary, Political Science (1234) 1566 Cowper, P-p (PA 3306)
A.B., Stanford, 1928, A.M., 1929.

†Hill, Frank, Mechanical Engineering (1234) 3010 Middlefield, P-R. 1, Box 256A, p

Hopkin, David J., Chemistry (234) 405 Emerson, P-p

†Ignacio, Frank, Museum (1234) 526 Lowell, P-*L*

Johnson, Sylvia, Bacteriology (123) 574 Addison, P-p (PA 5436)
B.S., University of Washington, 1924.

King, P. Stanley, Statistical Assistant, Food Research Institute (1234) East Palo Alto* (PA 3688)

Leggett, Bess Marion, Secretary, Publicity (23) Atherton*

†Lemos, Frank B., Museum (1234) 552 Tennyson, P-*L* (PA 8159)

†Lemos, John T., Art Gallery (1234) 627 Seale, P-*1322* (PA 4834)

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Marks, Graham Wallace, Assistant Custodian, Chemistry (1234) 437 Encina-*685* (PA 3121)
A.B., Stanford, 1926, Engineer, 1927.

Mestre, Doris S. (Mrs.), Hopkins Marine Station (1234) 902 Colton, Monterey-Box 567, m (Monterey 1973)

Moy, Herbert Bing, Physiology (4) 538 Cowper, P* (PA 4786)
A.B., Stanford, 1927.

Myers, George Sprague, Zoölogy (23) 733 Homer, P-p
A.B., Stanford, 1930.

Newnan, Gladys, Bacteriology (1234) Mountain View-Rt. 1, Box 366, mv (MV 4431)
A.B., Stanford, 1924.

Norman, Marion Toll (Mrs.), Assistant Secretary, Economics (123) 641 Gilman, P-p
A.B., Stanford, 1926.

Oldroyd, Ida Shepard (Mrs.), Curator, Geology (34) 548 Alvarado-*1198* (PA 8510)

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Parsons, John Frederick, Guggenheim Laboratory (1234) 316 Stanford Union-*2331* (PA 3121)
A.B., Stanford, 1928, Engineer, 1930.

Reinold, Mary, Stenographer-Clerk, Food Research Institute (1) 836 Kipling, P* (PA 7408)

Rieckenberg, Dorothea, Nurse, Student Health Service (4) 873 Partridge, MP-mp (PA 21563)

Romanofski, Anton, Mining Engineering (3) 879 Easton, San Bruno-sb
A.B., Stanford, 1929.

†Schall, Ulysses A., Mining Engineering (1234) 429 Ruthven, P-p (PA 6864)

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Shively, Betty Theresa, Secretary, Romanic Languages (123) 543 Lasuen (PA 6500)

Snoddy, Charles, Secretary and Technical Assistant, Military Science and Tactics (1234) 439 Emerson, P* (PA 7737)

Stanford, Lucina, Hopkins Marine Station (1234)
104 Fountain, Pacific Grove-pg (Monterey 411W)
A.B., Fresno State College, 1928.

Stevens, Julia R., Secretary, Mechanical Engineering (1234)
926 Cowper, P-*2696* (PA 8295)

Stuart, Burton, Physics (1234) Mayfield-m

Taylor, Gladys E., Secretary, Physiology (1234) 836 Kipling, P* (PA 7408)

†Tihonravov, Alexander A., Geology (1234) Ross Rd., P*

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A.B., Stanford, 1924, Engineer, 1927.

Tuxford, Eileen L. (Mrs.), Secretary, History (1234) 321 Lytton, P-*12*

Uhlman, Walter, Engineer, Mechanical Engineering (1234)
305 Emerson, P-p (PA 4661)

Veblen, Becky Bradley, Bacteriology (1)
Sandhill Rd., MP-Box 314, P (PA 21666)
S.B., Chicago, 1924.

Vickers, Russell Rogers, Physiology (4) Hopkins Marine Station, Pacific Grove-pg

Vishoot, Mildred (Mrs.), Secretary, Medical Adviser of Women, and Department of Physical Education (Women) (1234) Palo Alto-*2238*
A.B., California, 1918.

Voorheis, Virginia Grace, Secretary, Physics (1234) 607 Lasuen (PA 21772)
A.B., Stanford, 1929.

Wallen, Jarvis Arthur, Guggenheim Laboratory (1234)
Concha, P-*1434* (PA 21590)
A.B., Stanford, 1928, Engineer, 1930.

Webber, Janet, Office Assistant, Graduate School of Business (234)
147 Mariposa, P* (PA 4625)

Wells, Margaret S. (Mrs.), Librarian, Education (1234) 351 Cowper, P-*44* (PA 4859)

White, Lois Aletha, Secretary, Romanic Languages (4) 347 Roble-*1954*

White, Marian Adele, Secretary, Bacteriology (1234)
195 Santa Rita, P-p (PA 21774)
A.B., Stanford, 1927.

Wright, Edward, Assistant Mechanician, Physics (1234) 712 College, M*

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Adams, Marjorie, Secretary, Appointment Office (234)
162 Melville, P-Box 1086, p (PA 5357)

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Palo Alto-Box 431, p (PA 3688)
A.B., Stanford, 1925.

Clark, Gladys P. (Mrs.), Recommendation Clerk, Appointment Office (1234)
358 Kingsley, P-p (PA 21830)

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Hill, Leslie, Cashier, Appointment Office (1234) 550 Salvatierra-*1327* (PA 6800)

Huneke, Helen Josselyn, Secretary to Dean of Women (1234)
565 Salvatierra-*2482* (PA 8578)
A.B., Stanford, 1928.

Jacobson, David Samuel, Assistant to Dean of Men (123)
215 Encina-*1664* (PA 3121)
A.B., Stanford, 1930.

Jordan, Marjory Lee (Mrs.), Stenographer, Appointment Office (1)
251 Emerson, P-p (PA 5227)

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Cedar, MP-Menlo School, mp (PA 3244)

Newcomb, Maude H., Secretary to Alumni Secretary (4) 825 University, P-p (PA 8272)

Stewart, Richard Reginald, Assistant to Dean of Summer Quarter (4)
Alpha Delta Phi-*J*
A.B., Stanford, 1930.

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513 Salvatierra-*557* (PA 8953)
A.B., Stanford, 1926.

Tudor, Cynthia, Filing Clerk and Clerical Assistant, Appointment Office (34)
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A.B., Stanford, 1926.

Stevens, Florence Tuttle, Assistant (124) 6 Homer Court, P-p (PA 8571)

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A.B., Stanford, 1925.

†Wrenn, Charles Gilbert, Assistant for Vocational Guidance (123) 1641 California, M-*2712* (PA 4041)
A.B., Willamette, 1926; A.M., Stanford, 1929.

THE LIBRARY

†Belenky, Lucas, Assistant, Loan Desk (1234) 559 Cowper, P-p (PA 3653)
A.B., Stanford, 1927.

Benepe, M. Acelia (Mrs.), Assistant, Circulation Division (1234) 345 Forest, P-p (PA 6975)
A.B., Stanford, 1928.

Bland, Marguerite M. (Mrs.), Assistant Secretary, Hoover War Library (1) 740 Homer, P-p (PA 3290)

Boezinger, Lina, Assistant in Cataloguing, Hoover War Library (1234) 262 Everett, P-p (PA 6481)

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A.B., Stanford, 1917.

Forbes, Theresa, Assistant, Catalogue Division (1234) 474 Everett, P-p

French, Evelyn F. (Mrs.), Assistant, Document Division (123) 435 Princeton, M-*2006* (PA 21150)

Glaeser, Alice A., Assistant, Lane Medical Library (234) 1413 Montgomery, SF-sf (Davenport 4473)

Hayes, Bernice, Assistant, Reference Division (123) 513 Salvatierra-*2554* (PA 8953)

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Lillie, Raymond Fell, Assistant, Circulation Division (1234) 219 Ramona, P-*2751* (PA 5589)

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O'Keefe, Marcella, Order and Periodical Divisions (234) Menlo Park-Box 516, mp (PA 7680)

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Renne, Elsie, Assistant, Order Division (1234) 531 Cowper, P-p (PA 4869)

Rensch, Ethel G. (Mrs.), Assistant, Circulation Division (1234) 358 Addison, P-*1231* (PA 3288)

Robertson, Muriel, Assistant, Catalogue Division (1234) Mountain View-*545* (MV 890)

Schoenheit, Helen Mar, Acting Law Librarian (1234) Cupertino-c (Santa Clara 162M)
A.B., Stanford, 1926.

Scibird, Ruth, Assistant, Reference Division (1234) 513 Salvatierra-*804* (PA 8953)

Stockle, Louise, Assistant, Reference Division (1234) 234 Grant Road, Mountain View-mv (MV 4216)
A.B., California, 1923.

Tum Suden, Linda, Cataloguer, Lane Medical Library (1234) 1900 Washington, SF-sf (West 7473)

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Buschke, Bessie (Mrs.), Assistant Secretary to Auditor (1234) 436 Waverley, P-p

Clarkin, John P., Bookkeeper (1234) 145 Monroe, Redwood City-rc

Dorman, Vivian Hodgen (Mrs.), Private Exchange Operator (1234) 526 Homer, P-p (PA 7530)

†Drugg, Walter C., Special Accountant (1234) Stanford Blvd., MP (PA 21681)

Dustman, Elmer, Clerk (1234) Stanford Firehouse

Fournie, Lillian, Endowment Clerk (1234) 252 Ramona, P-p (PA 4757)

Hall, Elsie (Mrs.), Private Exchange Operator (1234) 649 Fulton, P-p (PA 8113)

Haskett, Eleanor R., Assistant Secretary to Auditor (34) 149 Edgewood, P-p (PA 7744)

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Tronslin, Virginia, Clerk (4) 360 Kingsley, P-p
Webber, Janet, Cashier (1) 102 Pope, P-p (PA 4625)
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Ramsey, Agnes Craig (Mrs.), Mimeographer (1234) 572 Lasuen-*838* (PA 5740)
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Byrne, Rose, Information Clerk (123) 2694 Sacramento, SF-sf (West 5960)
Cavanaugh, Genevieve, Information Clerk (4) 1808 Octavia, SF-sf (Graystone 4771)
Cunningham, Marien (Mrs.), Cashier (1234) 742 Neuchatel, Burlingame-b (B 5532J)
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Foran, Katherine, Telephone Operator (1234) 2019 Webster, SF-sf (Fillmore 7974)
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Griffin, Hiram E., Night Cashier (1234) 2852 Pine, SF-sf (Fillmore 1494)
Hammond, Myrtle, Information Clerk (1234) 345 Euclid, SF-sf (Skyline 845)
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†Allen, Everett A., Foreman Plumber (1234) Stanford Park-*624* (PA 3954)

†Banham, Frank D., Mechanician (1234) 705 University, P-p (PA 3344)

†Corwin, George W., Assistant Mechanician (1234) 827 Webster, P-p (PA 6032)

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†Facciolla, Ben, Cement Foreman (1234) 2091 El Camino Real, P-p

†Hackenberger, William H., General Storekeeper (1234) 536 Addison, P-p (PA 5264)

†McDonnell, James W., Assistant Superintendent of Buildings and Grounds (1234) 618 Fulton, P-p (PA 3976)

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Miller, Carl F., Foreman, Garage (1234) 454 Forest, P-p

†Riechers, A., Foreman Carpenter (1234) 1111 Alma, P-p (PA 6873)

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†Carr, William Herbert, Custodian, Stanford Union (123) *232* Stanford Union-*1981* (PA 3121)

A.B., Stanford, 1928, M.B.A., 1930.

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University Press

†Appleby, Grant, Plant Superintendent (1234) 668 Oberlin, M* (PA 3649)
†Barnes, Arthur C., Foreman, Composing Room (1234) 1029 Parkinson, P-p (PA 8565)
Beal, Mae (Mrs.), Secretary, Publications Department (1234) 569 Addison, P-p
†Borsdamm, John, Foreman, Bindery (1234) 798 Palo Alto, P-p (PA 4573)
†Goodspeed, Dewey, Accountant (1234) 1076 Forest Court, P-p (PA 7841)
A.B., Utah, 1924.
Johnson, Ethel, Bookkeeper (1234) Palo Alto-Box 472, p (PA 4030)
†Smith, C. Brainard, Foreman, Pressroom (1234) 1211 Fulton, P-p (PA 8357)
Steffan, Augustus W., Proofroom (4) 214 Emerson, P-p
Storey, Dean, Advertising Manager, Publications Department (1234) 1744 Cowper, P-*3001*
A.B., Stanford, 1926.
Willard, Martha (Mrs.), Proofroom (123), Editorial Department (4) 515 Cornell, M*
A.B., Knox, 1912.

OFFICE OF THE TREASURER

Pryor, Kathleen, Stenographer (1234) 25 Eighth Ave., SF-sf (Skyline 9261)

BOARD OF ATHLETIC CONTROL

Aten, Imogene, Bookkeeper, A.S.S.U. Office (1234) 1404 Floribunda, Burlingame-b (B 4576)

Coe, Eloise (Mrs.), Stenographer (1234) 3225 El Camino Real, M-m (PA 7361)

Cunningham, Goldie (Mrs.), Bookkeeper (4) 542 Webster, P-p (PA 4181)

†Denny, Wallace, Trainer, Encina Gymnasium (1234) 110 Waverley, P-p (PA 5665)

DuPrau, Eunice, Office Manager and Secretary to General Manager (1234) 1004 Emerson, P* (PA 6877)

†Evans, Fred, Accountant (123) 210½ Oak, P-p (PA 5308)

Gemur, Clara E., Stenographer (1234) Mayfield-m (PA 21620)

Gordon, Caroline (Mrs.), Bookkeeper (1234) 346 Bryant Ct., P-p (PA 3791)

Hopkins, Ann (Mrs.), Stenographer (1234) 549 Stanford, M-*55* (PA 21550)

†Irwin, Jacob Carney, Manager of Ticket Department (1234) 120 Byron, P-p (PA 6692)

A.B., Stanford, 1926.

§Lemon, Nora, Stenographer (1) 123 University, Los Gatos-lg (LG 130R3)

†Liebendorfer, Don E., News Service (1234) 173 Madroño, P-p (PA 3251)

A.B., Stanford, 1925.

McDonald, Emanuel B., Superintendent of Athletic Buildings and Grounds (1234) Track House

†Moffitt, George W., Manager, Encina Gymnasium Store (1234) 411 College, M-m (PA 3386)

†Phillips, William L., Clerk, Encina Gymnasium Store (1234) 455 Sheridan, M-m

Phippen, Frank, Clerk, Grounds Department (1234) 240 California, M-m (PA 4186)

Sonnichsen, Jennie C., Private Exchange Operator (1234) Newell Road, P-p (PA 5619)

Stevens, Inez, A.S.S.U. Stenographer (1234) 926 Cowper, P-p (PA 8295)

†Tucker, Orville Hugh, Jr., Engineer (1234) 355F San Benito, MP-*3006* (PA 3375)

A.B., Stanford, 1924, Engineer, 1927.

DINING HALLS

Case, Charlotte B. (Mrs.), Bookkeeper (1234) 424 Seneca, P-p (PA 3961)

Sarson, Evelyn G. (Mrs.), Stenographer (1234) 1142 Guinda, P-p (PA 21247)

Wood, Harry A., Accountant (1234) Hotel Ramona, P-p (PA 6224)

§ Deceased, January 27, 1930.

ORGANIZATION

FOUNDATION

Stanford University was established under an Act of the California Legislature, approved March 9, 1885. The Founding Grant, executed November 11, 1885, was made public at a meeting of the Board of Trustees, held in San Francisco, November 14, 1885. The cornerstone of the Inner Quadrangle was laid May 14, 1887, and the institution opened to students October 1, 1891.

NATURE, OBJECT, AND PURPOSE OF THE UNIVERSITY

"We, Leland Stanford and Jane Lathrop Stanford, husband and wife, grantors, desiring to promote the public welfare by founding, endowing, and having maintained upon our estate known as the Palo Alto Farm, and situated in the Counties of San Mateo and Santa Clara, State of California, United States of America, a university for both sexes, with the colleges, schools, seminaries of learning, mechanical institutes, museums, galleries of art, and all other things necessary and appropriate to a university of high degree, to that end, and for that purpose, do hereby grant," etc.

"And that the trust hereby created may be executed according to the wishes of the grantors and each of them, they do hereby designate the Nature, Object, and Purposes of the Institution hereby founded, to be: Its nature, that of a University, with such seminaries of learning as shall make it of the highest grade, including mechanical institutes, museums, galleries of art, laboratories, and conservatories, together with all things necessary for the study of Agriculture in all its branches, and for mechanical training, and the studies and exercises directed to the cultivation and enlargement of the mind; Its object, to qualify students for personal success and direct usefulness in life; Its purpose, to promote the public welfare by exercising an influence in behalf of humanity and civilization, teaching the blessings of liberty regulated by law, and inculcating love and reverence for the great principles of government as derived from the inalienable rights of man to life, liberty, and the pursuit of happiness."

NAME OF THE UNIVERSITY

"Since the idea of establishing an institution of this kind for the benefit of mankind came directly and largely from our son and only child, Leland, and in the belief that had he been spared to advise as to the disposition of our estate, he would have desired the devotion of a large portion thereof to this purpose, we will that for all time to come the institution hereby founded shall bear his name, and shall be known as The Leland Stanford Junior University."

MANAGEMENT AND CONTROL OF THE UNIVERSITY

The general management and control of the institution is vested in a Board of Trustees, originally numbering twenty-four, and chosen for life. By the Amending Act of May 31, 1899, the number of trustees was reduced to fifteen, with future elections for a term of ten years. The Board of Trustees fills all vacancies.

POWERS AND DUTIES OF THE TRUSTEES

"The Trustees shall have power and it shall be their duty:

"To appoint a President of the University, who shall not be one of their number, and to remove him at will.

"To fix the salaries of the President, professors, and teachers, and to fix them at such rates as will secure to the University the services of men of the very highest attainments.

"To establish and maintain at such University an educational system which will, if followed, fit the graduate for some useful pursuit, and to this end to cause the pupils, as early as may be, to declare the particular calling which in life they may desire to pursue.....

"To prohibit sectarian instruction, but to have taught in the University the immortality of the soul, the existence of an all-wise and benevolent Creator, and that obedience to His laws is the highest duty of man.

"To have taught in the University the right and advantages of association and co-operation.

"To afford equal facilities and give equal advantages in the University to both sexes.

"The Board of Trustees shall annually report all their proceedings to the person who for the time being shall fill the office of Governor of the State of California, and shall accompany such report with a full account of their financial operation for the preceding year, and with a statement of the financial affairs of the institution."

POWERS AND DUTIES OF THE PRESIDENT

"It shall be the duty of the Trustees to give to the President of the University the following powers:

"To prescribe the duties of the professors and teachers; to remove professors and teachers at will; to prescribe and enforce the course of study and the mode and manner of teaching; such other powers as will enable him to control the educational part of the University to such an extent that he may justly be held responsible for the course of study therein and for the good conduct and capacity of the professors and teachers."

AMENDMENTS TO THE FOUNDING GRANT

A clause in the Founding Grant reserved to the grantors the right to alter, amend, or modify the terms and conditions of the grant in important particulars. Under this provision amendments were made by Mrs. Stanford under date of June 1, 1897, May 31, 1899, March 28, 1902, October 3, 1902, and June 1, 1903. These amendments were concerned mainly with matters of detail, but provided also "that the number of women attending the University as students shall at no time ever exceed five hundred."

An amendment to the Constitution of the State of California, adopted November 6, 1900, "permitted, approved, and confirmed all the trusts, estates, terms, and conditions" of the Founding Grant and of all the deeds, conveyances, and other instruments made and delivered before that date, and authorized the Legislature, under certain conditions, to exempt the property of the University from taxation. Article 13 of the State Constitution, as amended November 3, 1914, exempts from taxation the buildings, grounds (not exceeding one hundred acres), equipment, securities, and income, used exclu-

sively for educational purposes, of any educational institution of collegiate grade not conducted for profit.

THE UNIVERSITY FACULTY

"The Trustees shall constitute the President and professors the faculty of the University, and shall prescribe their powers and duties as such."

Under the Articles of Organization, adopted by the Board of Trustees March 31, 1904, the power and authority of the University Faculty is vested in the Academic Council, consisting of the President of the University, the Professors and Associate Professors, the Librarian, the Registrar, the Academic Secretary, such Assistant Professors as have been upon the roll of the faculty for three years, whether as assistant professors or instructors, and such other officers of the University or members of the teaching staff as the Academic Council may, with the assent of the Board of Trustees, determine. On October 9, 1924, the following were included in the Academic Council: The Dean of Women, Dean of Men, Chaplain, and, under certain conditions, Teaching Specialists, and members of the Library Staff and Registrar's Office. On June 18, 1926, the Director of the Summer Quarter was added, also the members of the Food Research Institute listed as Economists, Junior Economists, and Research Associates.

All general University regulations, statutes, and rules as to matters within the province of the faculty, must be initiated in and passed by the Academic Council. The Academic Council has general power and responsibility for the internal administration of the University, subject to express provisions contained in the Articles of Organization respecting the methods of exercising such powers through the President of the University, the Advisory Board, the Standing Committees, and the Department Faculties.

The Advisory Board consists of nine members of the rank of professor, one from each of the five department groups, and four chosen without reference to groups. All executive acts of general importance, such as recommendations for appointments, promotions, and dismissals, for the creation of new departments or chairs, etc., must be submitted by the President to the Advisory Board. The Advisory Board is also privileged to make such recommendations to the President, regarding policy, as it may decide by vote to be expedient, but no recommendations for appointments, promotions, or dismissals may originate with the Advisory Board.

The Executive Committee of the Academic Council consists of the President, Vice-President, Registrar, Academic Secretary, and two members from each department group elected by the Academic Council. The Executive Committee appoints the Standing Academic Committees of the Council, with the exception of the Graduate Study Committee which is elected by the Council.

The Standing Administrative Committees of the Council are appointed by the President.

The Department Faculties consist of the Professors, Associate Professors, Assistant Professors, and Instructors in the several departments, but only members of the Academic Council have the right to vote. A Department Faculty has direction of the work of instruction in the department and of the internal administration of the department, subject only to such control as is vested in the Board of Trustees, the President of the University, and the Academic Council. The Executive Head of the Department Faculty is designated annually by the President with the approval of the Advisory Board and of the Board of Trustees.

SCHOOLS

The scope of the University is indicated by the following Schools which have been organized:

School of Biological Sciences (including Anatomy, Bacteriology and Experimental Pathology, Biochemistry, Botany, Experimental Psychology, Food Research, Hopkins Marine Station, Paleontology, Physiology, and Zoölogy).

Graduate School of Business.

School of Education.

School of Engineering (including Civil, Electrical, Mechanical, Military Science and Tactics, Mining).

School of Hygiene and Physical Education for Men.

School of Law.

School of Letters (including Classical Literature, English, Germanic Languages, Romanic Languages, Slavic).

School of Medicine.

School of Physical Sciences (including Chemistry, Geology, Mathematics, Physics).

School of Social Sciences (including Economics, History, Philosophy, Political Science, Psychology).

For the purpose of elections to the Advisory Board and Executive Committee the Schools of the University are divided into groups, as follows:

Group I. School of Letters.

Group II. School of Biological Sciences, School of Hygiene and Physical Education for Men, School of Medicine, Department of Physical Education for Women.

Group III. School of Physical Sciences.

Group IV. Graduate School of Business, School of Education, School of Law, School of Social Sciences.

Group V. School of Engineering.

The Hopkins Marine Station, located at Pacific Grove, on the Bay of Monterey, is a branch of the biological work of the University.

The Food Research Institute was organized in 1921 under grant from the Carnegie Corporation for the purpose of studying the production, distribution, and consumption of food. The Board of Directors consists of Dr. Carl Lucas Alsberg, Dr. Joseph Stancliffe Davis, and Dr. Alonzo Englebert Taylor.

THE UNIVERSITY YEAR

The University year begins the first of October and is continuous throughout four quarters of approximately eleven weeks each. Any three quarters constitute an academic year. The summer quarter differs from other quarters only as the courses of study in the various departments may be contracted, or expanded, or specialized to meet the needs of a particular constituency; or, as in Physiology and Zoölogy, where the summer program is transferred to the Hopkins Marine Station at Pacific Grove. The emphasis of the summer quarter is placed on advanced and graduate work.

LOCATION

Stanford University is located in the Santa Clara Valley, thirty miles southeast of San Francisco, and is reached by the Coast Division of the Southern

Pacific Railway, Palo Alto being the University station.* The advanced and clinical work in medicine is carried on in San Francisco, and part of the biological work of the University at Hopkins Marine Station, Pacific Grove.

The University Trust consists of over seven thousand acres, partly level and partly rising into the foothills of the Santa Cruz Range; about fifteen hundred acres have been set aside as the campus proper. The Bay of San Francisco is about three miles east of the University grounds. Across the bay the Mount Diablo Range rises to a height of over four thousand feet, the Lick Observatory crowning Mount Hamilton, the highest of the range. The Santa Clara Valley is one of the most attractive portions of the state in fertility, in natural beauty, and in the excellence of its climate. In winter the mercury rarely falls below 30 degrees, with an average midday temperature of about 55 degrees. In summer the midday temperature ranges between 60 degrees and 80 degrees, occasionally higher and lower, the average being about 70 degrees; the nights are cool, the usual range being from 50 degrees to 58 degrees. The rainfall, normally about eighteen inches, is chiefly confined to the months from December to April, inclusive.

ENDOWMENT, INCOME, AND EXPENDITURES

The total endowment of the University is approximately $42,000,000, of which about $30,000,000 is invested in income-producing assets, and $12,000,000 represents the value of the educational plant, including real estate, buildings, improvements, and equipment. The annual income from all sources is approximately $2,800,000, of which about $950,000, or one-third, is derived from tuition and other student fees.

The total annual budget for academic purposes is about $2,200,000, which is seventy-eight per cent of the income. The annual expenditure for instruction and research alone is approximately $1,700,000, or sixty per cent of the income.

BUILDINGS

The architectural design of Stanford University, with the detailed plan of the inner quadrangle group, Encina Hall, and the first three engineering buildings, was the work of Mr. Charles Allerton Coolidge, of the firm of Shepley, Rutan & Coolidge, Boston, Massachusetts. The new library, men's gymnasium, pavilion, Encina Dining Hall, Toyon and Branner Halls are the work of Bakewell & Brown of San Francisco. In these newer buildings the original plan has been modified somewhat to give greater variety and interest, but the distinctive features have been preserved.

The central group of buildings, constituting two quadrangles, the one surrounding the other, is an adaptation of the mission architecture, and reproduces on an imposing scale the open arches, long colonnades, and red-tile roofing of the old Spanish missions of California. The Inner Quadrangle consists of twelve one-story buildings and the Memorial Church, connected by a continuous open arcade, and surrounding a court 586 feet long by 246 feet wide, or three and a quarter acres. The buildings are buff sandstone, somewhat varied in color, the stonework of broken ashlar, with rough rock-face, and the roofs covered with red tile.

The fourteen buildings of the Outer Quadrangle are constructed of the same material and in the same general style as the Inner Quadrangle, with

* Latitude = 37° 25′ 34″ North; longitude = 8^h 8^m 40.8^s West.

open arcades on the outside. The extreme length of the Outer Quadrangle is 894 feet.

The Leland Stanford Junior Museum is situated a quarter of a mile from the quadrangles, on the west side of the avenue to Palo Alto.

The Chemistry Building, located between the quadrangles and the Museum, consists of two separate structures—the main building and the Physical Chemistry Laboratory.

South of the central quadrangles are located the workshops of the Engineering departments, experimental laboratories, etc.

Encina, Toyon, and Branner Halls, situated east of the quadrangles, and *Sequoia Hall,* west of the quadrangles, are dormitories for men. Encina will normally accommodate four hundred and fifty students; Toyon and Branner each one hundred and fifty, and Sequoia one hundred. The extension of the *Stanford Union,* completed in 1922, furnishes dormitory accommodations for one hundred men, and includes a public dining room and cafeteria. *Roble Hall,* situated southwest of the quadrangles, near Lagunita, is the dormitory for women, and will accommodate two hundred and twenty-six students.

Encina Dining Hall, consisting of one central kitchen and eight separate dining rooms, furnishes accommodations for five hundred and fifty men.

Encina Gymnasium, for men, is a brick building with a frontage of 330 feet, situated north of Encina Hall and near the athletic grounds. There are two main divisions separated by a small court. The drill hall is 120 by 65 feet, with hard maple floor. There are rooms for special exercises, shower and locker rooms in each wing, ample offices, and space for storage and laundry. Three outdoor swimming pools, and adjacent tennis courts and athletic fields are available to all men.

The Pavilion, located south of Encina Gymnasium, is a building of brick and stone construction affording ample quarters for basketball games, with a gallery seating capacity of 2,700.

The Stadium is a bowl-shaped structure built on an earth embankment and has a seating capacity of 88,600. The field includes a quarter-mile track and 220-yard straightaway.

Roble Gymnasium, for women, is a frame building, equipped with apparatus for physical education. An outdoor swimming pool, 75 by 40 feet, is located near the gymnasium. In connection with the pool there are eighteen shower rooms, seventy-two dressing rooms, a laundry and sterilizing plant to care for the swimming suits, and a room for their drying.

The Thomas Welton Stanford Art Gallery, the first building of the second quadrangle group, containing four galleries designed for the exhibition of paintings and other works of art, was a gift of Thomas Welton Stanford, brother of Senator Stanford, one of the founders of the University.

The Library Building is the central unit in the second quadrangle group. The ground floor provides a reading-room for the Hoover War Library, one for books set apart for collateral reading, a department of public documents, and administrative workrooms. On the main floor are the delivery hall, the reference and reading-rooms, a browsing-room, a periodical room, the card catalogue, and administrative offices; on the mezzanine and top floors are the Charlotte Ashley Felton Memorial Library and a number of rooms for seminars and special research work. Including the Hoover War Library, Lane Medical Library, and the Law Library, the University Libraries contain over 510,000 volumes.

The grounds immediately about the University, constituting the campus

proper, have been reserved in part for experimental and ornamental purposes, in part as residence sites for members of the faculty.

The School of Medicine Buildings in San Francisco occupy four fifty-vara lots bounded by Clay, Sacramento, and Webster streets. These consist of the Clinical and Laboratory Building, including Lane Hall, and Lane Hospital, constructed of brick and stone, with a capacity of one hundred and eighty beds; and the Stanford University Hospital, a concrete structure, with a capacity of one hundred and thirty beds. The Lane Medical Library is situated on the corner of Sacramento and Webster streets, opposite the Clinical and Laboratory Building, and the Stanford School of Nursing on Clay Street, opposite the hospitals. The Library is a fireproof structure of Colusa sandstone, three and a half stories high, with steel stacks containing 65,000 volumes.

The Hopkins Marine Station is located on Cabrillo Point, Pacific Grove. The original building, the Alexander Agassiz Laboratory, is a three-story concrete structure 40 by 80 feet and provides the general laboratory and class rooms. The Jacques Loeb unit, a two-story concrete building 95 by 152 feet, provides special research laboratories, aquaria, and library. This unit, costing approximately $100,000, is a gift of the Rockefeller Foundation.

The Harris J. Ryan High-Voltage Laboratory is situated on Lasuen Street, about two miles southeast of the Quadrangle. The main laboratory is 173 feet long by 60 feet wide, with a clearance of 50 feet from the floor to the lowest roof truss. The entire south side of the building can be opened by means of huge doors 42 feet by 46 feet, in order to permit clearance of 21 feet in all directions for the high-voltage transmission lines which pass out of the building on this side and extend for a distance of approximately one and a half miles in a southerly direction. The laboratory is equipped with the largest transformer set ever constructed, with a capacity of 2,100,000 volts. The building and equipment, costing approximately $314,000, were financed through gifts from the leading light and power companies and manufacturers of electrical equipment.

CLUBHOUSES

The Stanford Union, a clubhouse for men, was projected by Herbert C. Hoover of the class of 1895, and built by contributions from students, alumni, faculty, trustees, and friends of the University. The Union Board is made up of three faculty members, three alumni, and three undergraduates, together with the Comptroller, the Dean of Men, and the President of the Associated Students. The management and control of the clubhouse is vested in an Executive Committee composed of members of the Union Board, as follows: One faculty member, one alumnus, the Comptroller of the University, the Dean of Men, the President of the Associated Students, ex officio, and two undergraduate student members. An additional building, consisting of dining halls and dormitory accommodations for one hundred men, was completed in 1922.

The Women's Clubhouse provides a social center for the women of the University, with meeting rooms for various University organizations.

The two Union buildings and the Women's Clubhouse are connected by means of cloistered arcades surrounding a court half an acre in extent, with a fountain as the central feature, and diversified by trees, grass, and a variety of flowering shrubs and plants. The fountain was the gift of the Class of 1922.

ADMISSION TO THE UNIVERSITY

GENERAL REQUIREMENTS

Admission to the University may be granted with Graduate, Upper, or Lower Division standing. The number admitted is limited by the facilities that are available. Applicants to be accepted as candidates for admission must present satisfactory recommendations as to personal character, must offer the approved credentials required for the division concerned, and, for the Upper and Lower Divisions, must pass the college aptitude test. The method of selecting candidates is explained below. Application and other necessary blanks will be furnished by the Registrar on request, and the use of these official blanks is required. In applying for such blanks address: The Registrar, Stanford University, California.

ADMISSION OF MEN

Limitations

Graduate Division.—At present the total number of men admitted to the Graduate Division is not limited except for special restrictions in force in the School of Medicine, in the Graduate School of Business, and at the Hopkins Marine Station. In these groups applicants must first satisfy the general admission regulations, and then meet special requirements which are ordinarily on a competitive basis.

Upper Division.—The total number of men admitted to the Upper Division is not fixed but is limited to the facilities that can be provided. The exact number which can be accommodated will vary from year to year, as a result of changes within the University, and cannot be stated definitely in advance. It should be noted that the number of students who may enroll in Medicine is limited, and that fulfillment of pre-medical requirements does not guarantee admission to the School of Medicine. Admission to the Upper Division does not assure enrollment at the Hopkins Marine Station.

Lower Division.—The total number of men admitted to the Lower Division is limited to 350 for the autumn quarter and 50 for the winter quarter. (No new students are admitted to the Lower Division for the spring quarter.) At present an unlimited number may be admitted for the summer quarter *only* with the understanding that not more than 50 of such matriculants will be promised enrollment for succeeding quarters. The selection of these 50 students may be deferred until the end of the summer quarter, in order that scholarship records made during the quarter may be considered. Summer matriculants not thus selected may make application for succeeding quarters and will be considered on the same basis as other candidates.

In addition to the foregoing, 50 foreign or special students may be admitted during each academic year.

Basis of Selection

In the Graduate Division, in groups where admission is limited, selection of applicants is made only on the basis of superior preparation and fitness for the work to be undertaken.

In the Upper and Lower Divisions, selection is made on the basis of superior fitness, taking into account scholarship, personal qualifications, and score on the college aptitude test.

In the Lower Division preference is given to approved candidates who pass the examinations of the College Entrance Examination Board (old plan or new plan) with an average grade of 75 or above.

The sons of graduates of the University, and of members of the faculty will be given priority in admission to the Upper and Lower Divisions until January, 1934.

Foreign and Special Students

Candidates from foreign countries who present credentials equivalent to the requirements for admission to the University, and whose command of written and spoken English shall be deemed adequate for purposes of college study, may be admitted.

Men of considerable maturity, twenty-one years or older, who do not fulfill the scholarship requirements for first-year undergraduate standing, but whose incomplete preparation has been supplemented by practical training and experience of distinct educative value, may also be considered for admission as special students not candidates for a degree.

ADMISSION OF WOMEN

Limitations

The total number of women attending the University at any one time is limited to five hundred by the terms of the Founding Grant of the University. In addition, there are special restrictions in force in the School of Medicine, in the Graduate School of Business, and at the Hopkins Marine Station.

Basis of Selection

In the Graduate Division, the selection of candidates is made on the basis of high scholastic attainment, personal qualifications, and special fitness for the work to be undertaken.

In the Upper and Lower Divisions selection is made on the basis of superior fitness, taking into account scholarship, personal qualifications, and score on the college aptitude test.

In the Lower Division, preference is given to approved candidates who pass the examinations of the College Entrance Examination Board (old plan or new plan) with an average grade of 75 or above.

The daughters of graduates of the University and of members of the faculty will be given priority in admission to the Upper and Lower Divisions until January, 1934, provided their qualifications place them among the first one hundred and fifty candidates, chosen on the basis of superior fitness, in any list where one hundred are to be selected (proportional numbers for larger or smaller lists).

A certain number of places are assigned each quarter to Upper and Lower Division candidates who made application under the regulations in force prior to February 21, 1921. Candidates admitted on this priority list for a particular quarter, who do not matriculate for that quarter, automatically lose their standing on the list, and will thereafter be considered only on the basis of superior fitness in competition with the other applicants.

Assignment of Places

Under the 500-limit, the number of places open to new women students in October is approximately 140. Of these, 35 are provisionally assigned to approved candidates for graduate standing; 105 to approved candidates for undergraduate standing. (At present, applicants with advanced standing insufficient to meet Upper Division requirements will not ordinarily be selected for admission.) Approximately 35 places will be assigned to new undergraduate women registered on the priority list, until such applications are exhausted. Proportional assignments will be made for the winter, spring, and summer quarters.

Application and Registration

Applications for admission (on blanks to be furnished by the Registrar) and credentials must be filed before the beginning of the quarter, as follows: May 1 for the autumn quarter, December 1 for the winter quarter, March 1 for the spring quarter, and June 1 for the summer quarter. If the numerical limit for the summer quarter is not reached on June 1, applications will be received after that date and until the list is complete.

Women who have matriculated in the University at the beginning of any autumn, winter, or spring quarter will be allowed to continue without further application, so long as scholarship and conduct are satisfactory, provided they present themselves for registration at the beginning of each quarter on the regularly appointed day. Special restrictions, stated below, apply to registration for the summer quarter, and to summer matriculants desiring to reregister for succeeding quarters. Places will not be held for women students after the regular registration day, except by permission of the Committee on Registration granted in advance.

Summer Quarter Regulations

The regular lists for the summer quarter will be made up immediately after June 1. Matriculation for the summer quarter, however, does not insure registration for any succeeding quarter. Summer matriculants will be considered in the same category as other applicants, and will receive only the advantage which inheres in application before February 21, 1921, or in superior credentials. There is now no advantage in applying earlier than is necessary to fulfill preliminaries and furnish credentials before the date fixed for selection of candidates.

COLLEGE APTITUDE TEST

A college aptitude test is required of all candidates for admission to the Upper and Lower Divisions.

When credentials are otherwise satisfactory, candidates who have failed to take the college aptitude test given by the University, or a similar acceptable examination, because of remoteness from examination centers or for other reasons satisfactory to the Committee on Admission and Advanced Standing, may be provisionally selected for admission. Such candidates may be denied admission, at the discretion of the Committee, if a score below 50 is obtained in the college aptitude test to be taken at Stanford University just before the beginning of the quarter for which admission is desired.

In February and March, the test is given in numerous centers in California, and outside the state wherever satisfactory arrangements for conducting the test can be made. The test is also given at the University a few days prior to the October, January, April, and June matriculation dates.

Following is the schedule of examinations to be given in 1930. A fee of *five dollars* is charged, due at the time of the examination, to cover cost of examination, scoring, and organization of results for use in the educational guidance of students.

CALIFORNIA

Bakersfield	Kern County Union High School Library	Wednesday	March	12, 8:30 A.M.
Chico	High School	Tuesday	February	25, 8:30 A.M.
El Centro	Central High School and Junior College	Monday	April	7, 8:30 A.M.
Eureka	High School	Tuesday	February	18, 9:00 A.M.
Fresno	State College	Wednesday	February	19, 8:30 A.M.
Fullerton	Junior College	Wednesday	March	19, 8:30 A.M.
Hollister	Room 5, San Benito County Junior College	Wednesday	March	12, 8:30 A.M.
Hollywood	L.A. Auditorium, High School	Friday	March	14, 1:15 P.M.
Long Beach	Woodrow Wilson High School and Junior College	Tuesday	March	18, 8:30 A.M.
Los Angeles	Room 159, Polytechnic High School	Saturday	March	15, 8:30 A.M.
Marysville	Yuba County Junior College	Wednesday	February	26, 8:30 A.M.
Modesto	Room 5, Junior College	Thursday	February	20, 8:30 A.M.
Monterey	Union High School	Thursday	March	13, 8:30 A.M.
Napa	Union High School	Friday	February	21, 8:30 A.M.
Oakland	Room 308, Administration Building, Second Ave., and East Tenth	Saturday	February	15, 9:00 A.M.
Ontario	Room 6, Science Building, Chaffey Junior College	Friday	April	4, 8:30 A.M.
Pasadena	Room 200, Junior College	Saturday	April	5, 8:30 A.M.
Red Bluff	Union High School	Monday	February	24, 8:30 A.M.
Riverside	Room 107, Junior College	Tuesday	April	8, 8:30 A.M.
Sacramento	Junior College	Saturday	February	22, 8:30 A.M.
San Diego	Senior High School	Monday	March	17, 8:30 A.M.
San Francisco	Room 319, Lowell High School	Saturday	March	8, 9:00 A.M.
San Jose	Conference Room, High School	Saturday	March	15, 8:30 A.M.
San Luis Obispo	High School	Tuesday	March	11, 8:30 A.M.
Santa Barbara	High School	Friday	March	21, 8:30 A.M.
Santa Cruz	High School	Friday	March	14, 8:30 A.M.
Santa Maria	Junior College	Saturday	March	22, 8:30 A.M.
Santa Rosa	Library, Junior College	Thursday	February	20, 8:30 A.M.
Stanford University	Assembly Hall	Saturday	March	29, 8:30 A.M.
Stockton	High School	Friday	February	21, 8:30 A.M.
Taft	High School and Junior College	Thursday	March	13, 8:30 A.M.
Ukiah	New High School Building	Wednesday	February	19, 8:30 A.M.
Ventura	Union High School	Thursday	March	20, 8:30 A.M.
Visalia	Union High School	Tuesday	February	18, 8:30 A.M.

OUTSIDE OF CALIFORNIA

Arizona				
Phoenix	Phoenix Junior College	Saturday	April	5, 9:00 A.M.
Tucson	Room 219, High School	Saturday	March	15, 8:30 A.M.
Colorado				
Denver	East High School	Saturday	March	15, 9:00 A.M.
Illinois				
Chicago	Cobb Hall, University of Chicago	Saturday	April	5, 9:00 A.M.
Indiana				
Indianapolis	Manual Training High School	Saturday	March	22, 9:00 A.M.

Minnesota				
Minneapolis	Room 202, Old Law Building, University of Minnesota	Saturday	March	8, 9:00 A.M.
Missouri				
St. Louis	Room 102A, Northeast Hall, Washington University	Saturday	March	15, 9:00 A.M.
Nevada				
Reno	Room 210, Dept. of Psychology, University of Nevada	Saturday	April	5, 9:00 A.M.
New York				
Ithaca	Room 46, Morrill Hall, Cornell University	Saturday	March	15, 8:30 A.M.
New York	330 Macy Hall, Columbia University	Saturday	April	5, 9:00 A.M.
Ohio				
Cleveland	Central High School	Saturday	February	15, 9:00 A.M.
Oklahoma				
Tulsa	Central High School	Saturday	April	5, 9:00 A.M.
Oregon				
Eugene	Room 324, Condon Hall, University of Oregon	Saturday	March	22, 8:30 A.M.
Portland	Room 202, Lincoln High School	Saturday	March	15, 8:30 A.M.
Utah				
Salt Lake City	Converse Hall, Westminster College	Saturday	March	22, 8:30 A.M.
Washington				
Seattle	Room 102, Garfield High School	Saturday	March	1, 9:00 A.M.
Spokane	Lewis and Clark High School	Saturday	March	22, 8:30 A.M.
Walla Walla	Whitman Memorial Building, Office of Professor Bratton, Whitman College	Saturday	March	15, 8:30 A.M.

ADMISSION TO THE GRADUATE DIVISION

The requirements for graduate standing are fulfilled by graduates of colleges and universities of recognized standing whose credentials evidence ability and promise, and who expect to become candidates for advanced degrees, or for teaching or administrative recommendations, or who purpose to pursue regular advanced, professional, or research courses.

Admission to the University with graduate standing does not necessarily imply immediate admission to candidacy for an advanced degree. For details concerning the requirements for advanced degrees consult pages 160–165.

Special restrictions are in force in the School of Medicine, in the Graduate School of Business, and at the Hopkins Marine Station. In these groups applicants must first satisfy the general admission regulations, and then meet special requirements which are ordinarily on a competitive basis.

Application for admission must be made on the blank furnished by the University, and the candidate must designate on this blank the School in which he desires to choose his major subject. All credentials must be filed with the Committee on Admission and Advanced Standing at the Registrar's Office on or before the following dates:

Women candidates.—May 1 for the autumn quarter. December 1 for the winter quarter, March 1 for the spring quarter, June 1 for the summer quarter.* Selection will be made after these dates, but actual matriculation in the

* After June 1 applications for the summer quarter may still be received, and may be granted if the numerical limitations have not been reached.

University will be permitted only when all requirements have been fulfilled prior to the day of the quarter for which the selection has been made.

Men candidates should file application and credentials early enough to receive assurance of admission before Registration Day, thus avoiding needless expense and disappointment.

(The special application dates for students desiring to register in Medicine will be found in the *Announcement of the School of Medicine.*)

The credentials required are: (1) Personal application for admission with graduate standing, including application fee of five dollars; (2) official transcript of all college work completed including certificate of degrees received; (3) statements of personal qualifications on blanks furnished by the University.

ADMISSION TO THE UPPER DIVISION

Candidates for admission to the Upper Division must have completed collegiate work which is satisfactory in quantity and quality.

The quantity requirement is met by graduates of approved junior colleges and by those who have completed the equivalent of at least 87 quarter units (two years) at an institution of recognized standing. Credit for physical or military training will not be accepted for meeting this requirement.

The quality of the work will be considered satisfactory if the average grade of the entire previous record, and of the last quarter (or semester), is at least equivalent to the quality represented by the average grade of C at this University, where the grading scale includes A, B, C, and D as passing grades. The determination of the equivalence of the average grades of any institution is based upon the experience of this University with students who have transferred from the school concerned.

Application for admission must be made on the blank furnished by the University, and the candidate must designate on this blank the School in which he desires to choose his major subject. All credentials must be filed with the Committee on Admission and Advanced Standing at the Registrar's Office on or before the following dates:

Women candidates.—May 1 for the autumn quarter, December 1 for the winter quarter, March 1 for the spring quarter, and June 1 for the summer quarter.*

Men candidates.—September 10 for the autumn quarter, December 10 for the winter quarter, March 10 for the spring quarter, and June 10 for the summer quarter. After June 10 applications for the summer quarter may still be received, and may be granted if facilities are available.

Selection will be made after these dates, but actual matriculation in the University will be permitted only when all requirements have been fulfilled prior to the first day of the quarter for which the selection has been made.

(The special application dates for students desiring to register in Medicine will be found in the *Announcement of the School of Medicine.*)

The credentials required are: (1) Personal application for admission with Upper Division standing, including application fee of five dollars; (2) official transcript of all college work completed, including statement of honorable dismissal from the institution last attended; (3) statements of personal qualifications, on blanks furnished by the University; (4) record of

* After June 1 applications for the summer quarter may still be received, and may be granted if the numerical limitations have not been reached.

any college aptitude or similar test other than that given by Stanford University.

ADMISSION TO THE LOWER DIVISION

With Advanced Standing

Applications for admission to the Lower Division with advanced standing will be received from candidates who, in addition to the completion of the requirements for first-year undergraduate standing, have satisfactorily completed collegiate work at an institution of recognized standing, the amount being less than that required for the Upper Division. (Satisfactory completion of work means that the average grade of the entire record, and of the last quarter [or semester], is at least equivalent to an average grade of C on a grading scale in which A, B, C, and D are passing grades.)

Application for admission must be made on the blank furnished by the University, and all credentials must be filed with the Committee on Admission and Advanced Standing at the Registrar's Office on or before the following dates: May 1 for the autumn quarter, December 1 for the winter quarter, and June 1 for the summer quarter.* (No new students are admitted to the Lower Division for the spring quarter.)

The credentials required are: (1) Personal application for admission to the Lower Division, including application fee of five dollars; (2) complete high-school record (except for men candidates who have completed a full year or more of collegiate work with satisfactory grades); (3) statements of personal qualifications; (4) official transcript of all college work completed, including a statement of honorable dismissal from institution last attended (regular transcript form of the institution to be used); (5) record of any college aptitude or similar test other than that given by Stanford University.

With First-Year Undergraduate Standing

Candidates for admission to the Lower Division with first-year undergraduate standing may fulfill the scholarship requirements, as explained below, either (I) by completion of a regular four-year high-school course, or its equivalent; or (II) by passing the examinations of the College Entrance Examination Board.

SCHOLARSHIP REQUIREMENTS

I. Without examination.—The scholarship requirements for first-year undergraduate standing are fulfilled *without examination* (1) by duly recommended graduates of approved four-year preparatory schools who present 15 units of recommending (certificate) grade (including at least 2 units in English); (2) by duly recommended graduates of approved three-year senior high schools who present 12 units of recommending grade completed in the senior high school, and 3 units of recommending grade completed in the last year of a junior high school. At least 2 units of English must be included. A total amount of 3 units may be granted for the work covered in the last year of a junior high school upon the condition that three regular subjects are carried for the entire school year with an average grade of B or 2; (3) by duly recommended graduates of approved preparatory schools presenting credentials covering the completion of 15 units of which at least 12 are of recommending grade (*a*) provided that the average of the total high-school

* After June 1 applications for the summer quarter may still be received, and may be granted if the numerical limitations have not been reached.

record and the average of the work of the last two years is not less than B, on the basis that A, B, and C are the passing grades, or (*b*) provided the score obtained in the college aptitude test does not fall below the Stanford median.

Where the school does not distinguish between a passing and a recommending (certificate) standard, a subject to be accepted as of recommending grade must be at least 5 per cent higher than the lowest passing grade. The first part of a continued subject, even if below the recommending standard, may be credited provided the last part is of recommending grade and the average of the two parts is of recommending grade. Subjects below the recommending grade at the time of graduation may be brought to the recommending standard and accepted as such, provided the subject is repeated or reviewed in a regular school session or tested by examination through the College Entrance Examination Board.

II. On examination.—The scholarship requirements for first-year undergraduate standing are fulfilled *on examination* by duly recommended candidates whether or not graduates of approved preparatory schools, who pass the examinations of the College Entrance Examination Board (1) in subjects (including English) aggregating 15 units or (2) the comprehensive examinations in four subjects, under the so-called new plan. This latter plan requires also the submission of a high-school record covering 15 entrance units. (For information regarding examinations of the College Entrance Examination Board, see pages 119–122.

SUBJECT REQUIREMENTS

The only prescribed subject is English (minimum, 2 units); but applicants will find it to their advantage to anticipate, in the high school, certain Lower Division requirements of the University and to offer the following as part of the 15 units required:

Four units in English;

Three units in one foreign language (or *two units* in each of two foreign languages);

One unit in either Biology, Botany, Physiology, or Zoölogy;

One unit in either Physics or Chemistry;

One unit in American History (or in American History and Civics).

In anticipation of an engineering course, *one unit* in plane geometry, *two units* in algebra, *one-half unit* in trigonometry, *one unit* in mechanical drawing, and the foreign language and biological science requirements listed above.

The maximum entrance credit which will be accepted in typewriting is *one unit;* in music, *three units* (only one of which may be in vocal or instrumental technique or both). No unit values are attached to penmanship, spelling, and physical education or military training.

APPLICATION AND CREDENTIALS

Application for admission must be made on the blank furnished by the University, and all credentials must be filed with the Committee on Admission and Advanced Standing at the Registrar's Office on or before the following dates: May 1 for the autumn quarter, December 1 for the winter quarter, and June 1 for the summer quarter.* (No new students are admitted to the Lower Division for the spring quarter.)

* After June 1 applications for the summer quarter may still be received, and may be granted if the numerical limitations have not been reached.

The credentials required are: (1) Personal application for admission to the Lower Division, including application fee of five dollars; (2) complete high-school record; (3) statements of personal qualifications; (4) record of any college aptitude or similar test other than that given by Stanford University; (5) official report of any examinations taken through the College Entrance Examination Board.

At the time of selection of candidates for the autumn quarter, made during May, work in progress will be considered in fulfillment of requirements, and admission will be granted subject to the satisfactory completion of all such work prior to the time of matriculation.

ENTRANCE UNITS

An entrance unit represents a year's study in any subject in a secondary school, constituting approximately one quarter of a full year's work. In assigning credit values two laboratory, drawing, or practice periods, not requiring additional study or preparation, are regarded as the equivalent of one recitation period. The length of the school year is assumed to be from thirty-six to forty weeks.

APPROVED PREPARATORY SCHOOLS

Approved Preparatory Schools are schools maintaining full four-year courses of high-school work and accredited (1) by the New England College Entrance Certificate Board, by The North Central Association of Colleges and Secondary Schools, by the Association of Colleges and Secondary Schools of the Southern States, by colleges and universities of recognized standing, or (2) upon inspection undertaken or authorized by the University.

The University records of first-year students will be considered as additional evidence of the standing of preparatory schools and of their good faith and success in meeting the requirements of the University, and such evidence will be made use of in determining as to the continuance of accrediting relations.

ENTRANCE EXAMINATIONS

In June, beginning the third Monday of the month, entrance examinations conducted by the College Entrance Examination Board are held simultaneously in all parts of the United States (in California, at Stanford, Berkeley, Los Angeles, and other places), and in various foreign countries. These examinations may be taken either under the four-subject plan (new plan), or toward the completion of the fifteen units ordinarily required of those entering on examination (old plan), or to supplement deficient credentials from approved schools. (In September, the comprehensive [new plan] examinations only are given at the University. See page 122.)

A list of places at which examinations will be held will be published about March 1, 1930. Requests that the examinations be held at particular points should be transmitted to the Secretary of the College Entrance Examination Board not later than February 1, 1930.

Detailed definitions of the requirements in all examination subjects are given in a circular of information published annually about December 1. Upon request to the Secretary of the College Entrance Examination Board a single copy of this document will be sent to any teacher without charge. In general, there will be a charge of twenty-five cents, which may be remitted in postage.

All candidates wishing to take these examinations must make application by mail to the Secretary of the College Entrance Examination Board, 431 West 117th Street, New York City. Blank forms for this purpose will be mailed by the Secretary of the College Entrance Examination Board to any teacher or candidate upon request by mail.

The applications and fees of all candidates who wish to take the examinations in June 1930 should reach the Secretary of the Board not later than the dates specified in the following schedule:

For examination centers

In the United States east of the Mississippi River or on the Mississippi	May 26, 1930
In the United States west of the Mississippi River or in Canada	May 19, 1930
Outside of the United States and Canada, except in Asia	May 5, 1930
In China or elsewhere in the Orient	April 21, 1930

Every application for examination which reaches the Secretary of the Board on or before the scheduled date should be accompanied by an examination fee of $10, which may be remitted by postal order, express order, or draft on New York to the order of the College Entrance Examination Board.

An application which reaches the Secretary later than the scheduled date will be accepted only upon payment of $5 in addition to the regular examination fee.

When a candidate has failed to obtain the required blank form of application, the regular examination fee will be accepted if the fee arrive not later than the date specified above and if it be accompanied by a memorandum with the name and address of the candidate, the exact examination center selected, and a list of the subjects in which the candidate is to take the Board examinations.

Candidates who have failed to file applications for examination may be admitted by the supervisor to all examinations except the Scholastic Aptitude Test upon payment of a fee of $5 in addition to the regular examination fee. Such candidates should present themselves at the beginning of the period of registration. They will receive from the supervisor blank forms of application which must be filled out and transmitted to the Secretary of the College Entrance Examination Board.

In order to exhibit their tickets of admission, to learn their examination numbers, and to obtain seats in the examination room, candidates should report for a morning examination at 8:45 and for an afternoon examination at 1:45. An examination will close for candidates admitted late at the same time as for other candidates. The examinations will be held in accordance with the time, Standard Time or Daylight Saving Time, observed in the local public schools.

No candidate will be admitted to the Scholastic Aptitude Test late, that is, after 9:00 A.M.

The Scholastic Aptitude Test, which will be held on the morning of Saturday, June 21, 1930, may be taken upon the completion of the school course or at the end of the third year of secondary school work. Each candidate desiring to take this test, even though he is to take no other examination, must file with the Secretary of the College Entrance Examination Board the usual application for examination. Application blanks will be sent to any teacher or candidate upon request by mail to the Board. If the Scholastic

Aptitude Test is taken in connection with other examinations no additional fee is required; if taken alone the fee is $10.

A week or more in advance of the Scholastic Aptitude Test each candidate who is to take the test will receive a booklet containing, with explanations and instructions, a specimen test, the blank spaces of which are to be filled in by the candidate. In order to secure admission to the test the candidate must present not only his ticket of admission but also this booklet with the spaces filled in as requested. The supervisor will admit no candidate to the examination room without this booklet.

Examination for Foreign Students.—The College Entrance Examination Board has prepared an examination to test competence in the use of the English language on the part of applicants whose native language is other than English. This examination will be given in April 1930 in a number of centers in Europe and Asia and has been planned with a view to test the candidate's ability (*a*) to read and understand written English, (*b*) to write English intelligibly, (*c*) to understand spoken English, and (*d*) to express himself intelligibly in spoken English. The University strongly advises all foreign students to take this examination before coming to this country. For full particulars concerning the examination, address the Secretary of the College Entrance Examination Board, 431 West 117th Street, New York City.

The Comprehensive Examinations

Applicants who present evidence of satisfactory preparatory work covering not less than fifteen entrance units may fulfill scholarship requirements by passing the comprehensive (new plan) examination in four subjects, determined as follows:

1. English (three units);
2. A foreign language, selected by the candidate (two, three, or four units);
3. Either Mathematics,* or Chemistry, or Physics, selected by the candidate (one, three, or more units);
4. A fourth subject, selected by the candidate, from the subjects in which examinations are held.

These four examinations must be taken at one time. At least two examinations must cover more than two entrance units each. In each subject selected the examination must cover all the units counted by the candidate toward the required fifteen units of preparatory work.

Comprehensive examinations are offered in the following subjects only: Biology (one unit); Botany (one unit); Chemistry (one unit); English (three units); French (two, three, or four units); German (two, three, or four units); Greek (two or three units); History (Ancient, European, English, American History including Civil Government—one or two divisions, one unit in each); Italian (two, three, or four units); Latin (two, three, or four units); Mathematics (three or more units); Physics (one unit); Spanish (two, three, or four units); Zoölogy (one unit). If taken as an "old plan" examination, Mathematics may cover any one or more of the following divisions: elementary algebra, plane geometry, solid geometry, trigonometry, advanced algebra.

* For the comprehensive examination in Mathematics there may be substituted either one of the regular examinations in Algebra or Plane Geometry.

In September, beginning the third Monday of the month, comprehensive examinations only are held at the University. (The September question papers are prepared by the College Entrance Examination Board, but the answer books are read and graded by the University.) The examination fee in September is $5, and must be paid in advance. Applications, with satisfactory credentials, must be presented to the Registrar, Stanford University, California, not later than the second Monday of the month.

The examination schedule for September 1930 is as follows:

Monday, September 15—English, 9 A.M.; French, 2 P.M.

Tuesday, September 16—Latin, 9 A.M.; History, 2 P.M.

Wednesday, September 17—Elementary Mathematics, 9 A.M.; German, Italian, Spanish, 2 P.M.

Thursday, September 18—Chemistry, Physics, 9 A.M.; Greek, Advanced Mathematics, 2 P.M.

Friday, September 19—Scholastic Aptitude Test, 9 A.M.; Biology, Botany, Zoölogy, 2 P.M.

ENTRANCE SUBJECTS

The standard of preparation is the four years' high-school course. The proper co-ordination of high-school subjects for the individual pupil is regarded as primarily a problem for the secondary school; the University is prepared to recognize for entrance credit any subject having an established place in the secondary school curriculum, in which adequate instruction is given and which is pursued to satisfactory results.

All Lower Division students (except students coming from other institutions with satisfactory credit in a college composition course) will be required to satisfy the University standard in English Composition. This may be done by passing a special matriculation test to be taken during the first quarter of residence in the University. The examination will test the candidate's practical knowledge of spelling, punctuation, and sentence structure, and his ability to think consecutively on a simple subject. The subjects which are set at the time of the examination will be drawn for the most part from the candidate's own experiences. A student who does not pass will be required to register in English A and remain in the course until his work is of passing grade.

DEFINITION OF HIGH-SCHOOL SUBJECTS

The definition of high-school subjects given by the College Entrance Examination Board in its annual circular of information will serve as a standard. The following suggestions and explanations indicate the attitude of the University in judging entrance credentials, but no attempt is made to enumerate all the subjects which may be properly included in the high-school curriculum.

English.—The primary aim of instruction in English Composition in the secondary schools is clearness. Based upon grammatical correctness, which is the peculiar goal of elementary English Composition, this is the quality by which the Stanford matriculation test is rated. To attain these aims there should be a definite co-operation of the entire staff of the school.

The work in English Composition should be given at least two recitations a week throughout the entire high-school course. Emphasis should be placed on practice in writing, but it is recommended that some attention be also paid to instruction in the fundamental principles of formal rhetoric.

The work in English Literature should be given an average of at least

three recitations a week throughout the four years of the preparatory course. It should be so conducted as to give the student not only an appreciative understanding of the books selected either for general or for more intensive study, but also a knowledge of their place in the history of English Literature, together with an ability to read aloud intelligently both prose and verse.

In the History of English Literature preparation should consist in a brief outline with a view to making clear the character and the tendencies of the more important literary epochs and associating the chief books and authors in their proper periods.

Mathematics.—The work in Mathematics is usually distributed as indicated by the following unit values: Algebra (1 to 2), plane geometry (1), solid geometry (½), trigonometry (½). Additional work may be offered in algebra and plane analytical geometry. The solution of numerous original problems and exercises is assumed throughout the course.

The Sciences.—In Physics, Chemistry, Physiology, Botany, Zoölogy, Hygiene, and General Science a full year's work in each is expected, comprising, preferably, two recitation periods and three double laboratory periods per week. Accurate notes of the laboratory work should be kept. Any two of the biological sciences (Physiology, Botany, Zoölogy) may be combined into a continuous year's course. Astronomy may be offered as a half-unit course.

In Physiology the textbook work should be accompanied by experiment, dissection of animals and organs, and a certain amount of study of the tissues with the microscope.

In Botany the main thing is that the work shall be of a practical nature: the study mainly specimens and not books. A study of the growth and development of the forms selected is of the highest importance, and should be made a prominent feature in the work. If possible, the pupil should be allowed the use of a compound microscope, but when this is not practicable, microscopic demonstrations by the instructor are indispensable.

In Hygiene the work should include adequate instruction in personal hygiene, the hygiene of occupation, and the relation of the citizen to the state in matters of sanitation and public health. Three periods per week of physical training and three periods in experimental laboratory work in Hygiene, and two recitations per week on Public Health, or an equivalent amount of work distributed over a longer period, will cover the requirements for one unit of credit.

History and Allied Subjects.—History should be offered in full unit courses covering respectively the following divisions: (*a*) Ancient, (*b*) European (either Medieval and Modern or Modern European), (*c*) English, (*d*) American. Civics may be offered as a part of American History, or as an additional half-unit course. Biblical History and Literature and Economics may each be offered as a half-unit or a unit course.

In the History subjects, in addition to the textbook preparation, the following exercises are recommended: Supplementary reading, including the use of original material where possible, notes and digests of reading; abstracts or analyses of specified chapters, both of the textbook and supplementary reading; outlines of subjects, gathering material from all available sources; map-drawing from printed data or comparison of existing maps, showing movements of exploration, migration or conquest, territorial changes, or social phenomena. Such work should be regarded as a means rather than the end of historical study and in every instance should be adapted in character

and amount to the stage of advancement of the class and of the individual pupil. As the pupil progresses in his study, more advanced work may well be required in the form of historical composition and of note-taking in the class from talks by the teacher or reports of fellow-pupils.

Spanish and French.—The elementary study of the languages, covering two years of daily recitations, should lay stress on the following points: (1) An accurate knowledge of the forms of the languages; (2) the elements of syntax; (3) the ability to turn easy English prose into French or Spanish; (4) the ability to translate ordinary French or Spanish into idiomatic English; (5) the ability to pronounce French or Spanish correctly.

(Students who have had one year of French in the high school and present one unit of credit for entrance into the University may take Course A2. Those who have had one year of Spanish in the high school and present one unit of credit for entrance may take Course B2. Those who have had two years of French or Spanish in the high school, and present two units of credit for entrance, may take second-year work in the University.)

The intermediate requirements are intended to represent a third year of daily recitations. The specific demands are: (1) A thorough knowledge of modern French or Spanish syntax; (2) the ability to turn ordinary modern French or Spanish at sight into idiomatic English; (3) the ability to translate connected English prose of moderate difficulty into French or Spanish; (4) the ability to write French or Spanish from dictation; (5) some facility in speaking the languages.

(Students who have had three years of French in the high school, and present three units of credit for entrance into the University, will ordinarily take Course A22. Courses A26 and A30 are also open to them. Students who have had three years of Spanish in the high school, and present three units of credit for entrance into the University, will ordinarily take Course B22. Courses B26 and B30 are also open to them.)

The advanced requirements will occupy a fourth year of daily recitations.

At the end of this course the student should be able: (1) To read at sight any standard author not earlier than the seventeenth century; (2) to write in French or Spanish a short essay on some simple subject connected with the works read; (3) to translate correctly a passage of modern English prose; (4) to carry on a simple conversation in French or Spanish; (5) to follow a lecture in French or Spanish.

The reading in the elementary course should cover from four hundred to six hundred duodecimo pages; in the intermediate course a similar amount should be read of prose and verse, a portion to be in the dramatic form; and in the advanced course the same quantity of prose and verse should be selected from standard authors not earlier than the seventeenth century, and these should be read with reference to their literary value.

The practice of writing compositions consisting in reproductions or paraphrases of the matter read should be begun in the intermediate course and followed by short themes along similar lines in the advanced course.

German.—Elementary German represents the work of two high-school years with daily recitations. It should give the following preparation: The ability to read understandingly at sight easy German prose and verse; an accurate knowledge of the most important elements of grammar, embracing especially inflections, word-order, and the essentials of syntax, as also the ability to appreciate the force of prefixes and suffixes; the ability to express in correct German simple ideas concerning familiar things and to recognize

German words and simple sentences when spoken. Careful attention should be given to pronunciation and accentuation.

The amount of work to be accomplished in the first year is approximately what is contained in a beginner's book such as Zinnecker's *Deutsch für Anfänger,* with some additional reading. The reading of the second year should be for the most part graded modern German from 200 to 300 pages. German should be the language of the classroom, instruction in conversation, composition, and grammar being based largely on the reading text.

Intermediate German represents a third year of daily recitations, designed to extend and strengthen the pupil's personal command of the language, and his knowledge of word formation and syntax. Here again the reading matter should be, in large measure, the center of the instruction, and some attention should be paid to literary appreciation.

Advanced German represents a fourth year of daily recitations. Besides rounding out the pupil's knowledge of grammar, and increasing his facility in speaking and writing, this course should make considerable addition to his passive vocabulary and develop his literary appreciation. It would be advisable to choose most of the reading from the works of recent or contemporary writers, but some work or works of Lessing, Goethe, and Schiller should be studied intensively, while others might be assigned for outside reading and report.

Latin.—The reading required in elementary and advanced Latin (4 units), without regard to the prescription of particular authors and works, is not less *in amount* than Caesar, *Gallic War,* I–IV; Cicero, the orations against Catiline, for the Manilian Law, and for Archias; Virgil, *Aeneid,* I–IV. An equivalent amount of reading from authors other than those specified above may be substituted. The following are suggested: Caesar, *Civil War;* Eutropius; Nepos; Terence; Phormio; Cicero, *Letters;* Sallust; Virgil, *Bucolics* and *Georgics;* Ovid, *Metamorphoses.*

Exercises in translation at sight should begin in school with the first lessons in which Latin sentences of any length occur, and should continue throughout the course with sufficient frequency to insure correct methods of work on the part of the student. From the outset particular attention should be given to developing the ability to take in the meaning of each word—and so, gradually, of the whole sentence—as it stands; the sentence should be read and understood in the order of the original, with full appreciation of the force of each word as it comes, so far as this can be known or inferred from that which has preceded and from the form and position of the word itself. The habit of reading in this way should be encouraged and cultivated as the best preparation for all the translating that the student has to do. No translation, however, should be a mechanical metaphrase. Nor should it be a mere loose paraphrase. The full meaning of the passage to be translated, gathered in the way described above, should finally be expressed in clear and natural English.

The school work in Latin should include much reading aloud, writing from dictation, and translation from the teachers' reading. Learning suitable passages by heart is also very useful, and should be practiced.

The work in composition should give the student a better understanding of the Latin he is reading at the time, if it is prose, and greater facility in reading. It is desirable, however, that there should be systematic and regular work in composition during the time in which poetry is read as well; for this work the prose authors already studied should be used as models.

Greek.—In Elementary Greek (2 units) the following requirements should be covered: Grammar, the inflections, and the essential points of syntax; Xenophon's *Anabasis,* Books I–IV, or an equivalent; prose composition. It is expected of every pupil that he be able to read Greek aloud without stumbling.

In Advanced Greek (1 unit): Homer, *Iliad,* Books I–III, or an equivalent; advanced prose composition. The pupil should have a good acquaintance with the forms and syntax of Homer, and be able to scan any given passage exactly and to read it rhythmically. In the writing of Greek the pupil should have a year's training beyond that required in Elementary Greek.

Drawing and Applied Art.—In each of the drawing subjects (Freehand, Mechanical, and Architectural) a unit of credit represents daily double periods for a year or single periods for two years.

In Freehand Drawing approximately two-thirds of the time should be given to representation and one-third to decorative and constructive design. *Representation* should include: Object drawing, boxes, books, bowls, vegetables, machine parts, drawn in various positions with attention to perspective facts in line and also to light and shade; plant forms, seed pods, shells, insects, animals, and simple landscape, drawn in line, in light and shade, and in color; composition, exercises in arrangement and adaptation of pictorial subjects into good composition, using both rhythmic line arrangement and harmonious color. The style of drawing should be direct, facile, and effective, adapted to the thing drawn, with refinement in its proper place and vigor in its proper place. The pupil should be equally familiar with the use of pencil and charcoal or brush. *Design* should include (1) exercises in space filling, borders and all-over patterns with use of geometric and organic forms; (2) principles of constructive and decorative design applied to simple objects, such as, in printing, a title-page or program; in textiles, a stencil or embroidery design for a curtain or table-scarf; in wood, working drawings for a chair, table, clock-case, book-rack, etc.; in metal, cabinet hardware and lighting fixtures, etc. Talks supplemented by photographs of the best paintings and architecture, and talks upon taste in home furnishing and appointments, with visits to worthy examples, should supplement the course with a view to developing an enlightened taste in art.

In Mechanical Drawing the pupil is expected to acquire neatness and accuracy in the use of drawing instruments. This course should include practice in line work, lettering, machine or architectural working drawings, and tracing. Recognition, commensurate with the length of course and the degree of proficiency attained in the use of instruments, will be given, however, to courses consisting of line work, lettering, and the construction of geometric figures.

Shopwork.—Two things are expected: First, a knowledge of the materials and tools used, and a thorough understanding of the principles involved in the operation performed; second, manual dexterity, as evidenced by neatness, accuracy, and dispatch in the execution of a given piece of work.

Woodworking (½ unit) demands the ability to recognize the common varieties of wood, and some knowledge of their physical properties, such as ease of working, strength, toughness, hardness, etc., is expected. The pupil should be familiar with the uses of the principal hand tools of carpentry, and, with care, be able to make the ordinary kinds of joints and splices, and be familiar with the operation of lathe, jig-, band-, and circular-saws, and planing machines.

Forge Work (½ unit) demands an elementary knowledge of the properties of wrought iron and steel, and of the proper heats at which to work them. The management of the forge and the fire and the nature and uses of all the ordinary blacksmithing tools should be known. The pupil should be able to execute all of the common forging processes, including the various forms of welds in iron and steel; he is also expected to understand hardening, tempering, and annealing.

Foundry Work (½ unit) demands a knowledge (1) of the tools and processes used in the ordinary forms of green sand molding and core work; (2) of the properties of cast iron, and experience in pouring cast iron as well as in molding. The pupil should have had practice in charging and operating the cupola.

Machine Shop Work (½ to 1 unit) demands a knowledge of the tools and processes used in the working of iron, steel, and brass. The pupil should be able to execute all forms of vise work, such as chipping, filing, scraping, fitting, and finishing. He should be familiar, through experience in operation, with the simpler forms of machine tools, such as the lathe, drilling machine, planer, shaper, and milling machine.

Agriculture, Horticulture, Domestic Science, Commercial Subjects, Music.—The outline prepared by the University of California is suggested.

FEES, EXPENSES, AND AID FUNDS

APPLICATION, TUITION, AND COMMUNITY FEES

The Application Fee for all candidates for admission to the University, and for all registered students applying for admission to the Graduate Division, is $5, payable at the time of application. (This fee, once paid, is not returnable, but may be transferred to a later date by students who fail to matriculate.)

The Tuition Fee, per quarter, for all students, graduate and undergraduate, is stated in the following schedule:

Group	Graduate School of Business	School of Medicine	All Other Schools and Departments
I. Students who have been registered in the University and those who matriculate prior to Autumn Quarter, 1930*.....	$115.00	$100.00	$85.00
II. Students who matriculate Autumn Quarter, 1930, and thereafter.....	130.00	115.00	100.00

* Beginning Autumn Quarter, 1933, all students in Group I will pay the increased fees listed under Group II.

The Community Fee for all students, graduate and undergraduate (except as noted below), is $13 per quarter. This fee covers the privileges of the gymnasia, athletic grounds, hospitals, the Stanford Union or Women's Clubhouse, and membership in the Associated Students. The Community Fee is not collected from students registered at the Hopkins Marine Station. Students registered in the School of Medicine at San Francisco are charged a Hospital Fee of $5 instead of the Community Fee.

A Pavilion Fee of $1 per quarter is collected from all undergraduates for the Associated Students.

A Law Library Fee of $5 is charged all students majoring in the School of Law.

In addition to the fees listed above, students in laboratory courses pay for the materials which they use, and in some courses syllabus and other fees may be charged. In medical courses a deposit ranging from $10 to $20 per annum is required to cover breakage or loss of apparatus and materials, such deposits being returnable, less charge for breakage, loss, or wear and tear of apparatus.

In the School of Medicine, students who have paid the regular fees in full, and wish to take additional work before graduation, will pay for this work such fees as are decided upon in conference with the Dean and Executive Head of the Department in which such courses are taken.

The General Fee at Hopkins Marine Station is $85 per quarter for students in Group I and $100 per quarter for those in Group II, as classified above.

A Diploma Fee of $5 is charged all persons receiving degrees from the University, except those who have enrolled for the first time in the graduate or undergraduate divisions of the University since January 1, 1927.

Refund of Fees

Students who withdraw from the University before the end of a quarter may receive refunds of portions of their fees, provided written requests are filed

within two months of the time of withdrawal from the University. Refunds will be made according to the circumstances of the withdrawal, as follows:

1. *Annulled Registration.*—Students who withdraw from the University voluntarily within two days after the day of registration may have their registration annulled. The refund will be the tuition and community fees in full. Such students will not be included in the office records, and will not secure any privileges for admission for any subsequent quarter as returning students.

2. *Leave of Absence.*—Leave of absence may be requested from the Registration Committee by any student in good standing at any time, but will be granted within four weeks of the end of the quarter only with the approval of the Scholarship Committee. When leave of absence is granted, effective within two weeks after the day of registration, the refund will be the fees paid less the following charges: Tuition, $10, Community, $9, Pavilion, $1; between two and four weeks after the day of registration, the refund will be the fees paid less the following charges: Tuition, $25, Community, $9, Pavilion, $1; thereafter there will be no refund allowed. Such students will be included in the office records, and may enroll in the University for any subsequent quarter with the privileges of a returning student.

3. *Cancelled Registration.*—Students who have their registration cancelled, or are suspended from the University, for cause, will receive refunds on the same basis as those receiving a leave of absence, unless otherwise specified in the disciplinary action taken. A student whose registration is cancelled within one week after the day of registration, for an offense committed during a preceding quarter, will receive a full refund of tuition and community fees.

4. *Provisional Registration.*—Students who have received permission to attend the University provisionally, pending the adjustment of their standing, and who are denied registration within two weeks after payment of fees, will receive a full refund of tuition and community fees. Such students will not be included in the office records. After two weeks they will receive refunds on the same scale as for a leave of absence.

Syllabus and laboratory fees (collected after the fourth week of the quarter) are not subject to refund. Chemistry laboratory fees, collected at the beginning of the quarter, are refunded on the order of that department on the basis of service and supplies which have been used. Fines may be refunded on the order of the authority under which they were imposed.

LIVING ACCOMMODATIONS AND EXPENSES

There are five dormitories for men (Branner, Encina, Toyon, and Sequoia Halls, and the Stanford Union) and one for women (Roble Hall), all under University management. In addition, there are fraternity and sorority houses, a privately conducted boarding house, and a number of rooms in private houses on the campus and in Palo Alto, where students may be accommodated with the approval of the University (consult the Dean of Men or the Dean of Women).

Men.—Undergraduate men, not living with parents or guardians, are expected to room in the dormitories. New Lower Division men entering the University in the autumn, are required to live at Encina Hall for the first three quarters and those entering in the winter, for the first two quarters. Rooms in the Union are available preferably for graduates and seniors. Application for rooms should be made to the Dean of Men several weeks in advance of the opening of the quarter, and should be accompanied by a remittance of $5, payable to Stanford University, which will be applied on the

rental cost. Assignments will be made as vacancies occur. If no rooms are available applicants' names will be placed on the waiting lists and subsequent assignments will be made from these lists. The University reserves the right to approve the places of residence of men not living in the dormitories. The cost of rooms in the dormitories is from $18.50 to $36 per quarter (average cost $24 per quarter), but this may be increased in the future. Room rent is payable at the beginning of each quarter. Students living in the dormitories are expected to supply their own linen and bedding for standard size single beds. Board may be obtained at the Stanford Union, Sequoia Hall, Encina Dining Hall, and in various clubs, the cost ranging from $30 to $40 per month. New Lower Division men who live at Encina Hall are also required to board there throughout their period of residence. The cost of board in the Encina Dining Hall, operated on a co-operative plan, is approximately $85 per quarter for a six-day service per week, and is payable in full at the beginning of the quarter or optionally in two installments, the amount of each installment and the time of payment to be fixed each quarter.

The Stanford Y.M.C.A. keeps on file a list of rooms on the campus and in Palo Alto, at an average distance of a mile and a quarter from the University, which are available to men students.

Women.—Undergraduate women not living with parents or guardians are required to reside in Roble Hall for three quarters. (Some modification of this requirement for the succeeding autumn quarter may be made for students entering in the winter and spring quarters.) Women students not residing in Roble Hall may live only in places approved by the University (consult the Dean of Women).

Roble Hall, the women's dormitory, is arranged either in singles or in suites of three rooms. The application for room assignments in Roble Hall should be made to the Social Director and must be accompanied by a remittance of $5, payable to Stanford University, to cover a deposit fee to be applied on room rent when registration has been completed. As rooms are assigned in order of application it is recommended that early application be made.

The rent for a room in Roble Hall, including a service fee, is $32.25 per quarter, but this may be increased in the future. Room rent is payable in advance for the quarter (for the summer quarter either in full or in two installments, $21 and $11.25, respectively). Deposit fees of $1 for key to the room and $1.50 for a pillow are required; both deposits may be refunded at the end of the quarter if the articles are returned in good condition. Students rooming in the Hall furnish couch covers, bed linen, blankets, towels, bureau scarfs, rugs, and curtains. White curtains, sold at cost, are uniform for the Hall and must be purchased of the House Director, except in the summer quarter when curtains are rented for $1. Also, for summer quarter students, a few rugs are available, and bed linen and blankets may be rented from the House Director at the rate of $3 for the first term or for the full quarter, but as the supply is limited no guaranties can be given that bedding will be available. It is advisable, therefore, to apply for bedding when making application for a room.

Board is approximately $85 per quarter, except for the summer quarter when it is $90, payable in advance for the quarter or in two installments ($45 and $40, or for the summer quarter, $56 and $34).

All residents in the Hall are members of Roble Club. In order to cover the cost of the informal entertaining of the club and of maintaining the additional telephone service desired by the club, the dues are $2.50 per quarter.

Commuters.—Special commutation tickets are issued by the Southern Pacific Company, and students living in towns on the line of the railway, from San Francisco to San Jose, easily go to and from the University daily. There are also trolley and bus connections with San Jose, Los Gatos, and intermediate towns.

Medical Students.—The cost of living for students of Medicine in San Francisco is about the same as at Stanford University. There are numerous rooming and boarding houses near the medical buildings.

Guests.—A guest suite is maintained at the Stanford Union and may be engaged by making reservations in advance. The guest suite, available for men, or man and wife, is composed of a sitting-room, bedroom, and private bath. Rates per night, $3 for one person, $3.50 for two; by the week, $21. Limit of two weeks. Reservations may be made with the Custodian. Additional guest rooms will be added to the Union accommodations as far as the campus housing problem permits and patronage is assured.

Fixed Expenses Per Quarter

The following is an estimate of the expenses *per quarter,* for undergraduate men, *for the items named:*

	Medium	High
Tuition and Community Fees	$113.00	$113.00
Books, Syllabus Fees, etc.	15.00	30.00
Board	85.00	120.00
Room	18.00	45.00
Incidentals (other than clothing and railway fares)	35.00	50.00
Laundry and clothing	35.00	100.00
Total for the quarter	$301.00	$458.00

Laboratory fees are additional. The cost of board is variable and the estimate given for men is conservative, while a lower cost is possible in co-operative clubs. For women residing in Roble Hall room and board amount to approximately $110 for the quarter ($125 for the summer quarter). All undergraduates pay also the Pavilion assessment of $1 per quarter.

SELF-SUPPORT OF STUDENTS

A considerable number of students find it possible to earn the whole or a part of their expenses while attending the University. Success depends upon the student himself. The University, through the Appointment Secretary's office, and in other ways, is able to help the student both in finding work and in making plans. It cannot, however, assume the responsibility of supplying work for all applicants. The student who combines initiative and good health with industry and reliability, and who is willing to adapt himself to circumstances, is the one who succeeds in this as in other undertakings. It is, however, the opinion and advice of those most closely in touch with the problem of student self-support that no new student should register unless he has sufficient means at hand or in prospect to carry him through his first quarter.

Students who are contemplating earning their own expenses at the University should neither register for a heavy course nor attempt to engage in more than one student activity, particularly during their first quarter at the University. (Self-supporting students whose scholarship is high are given preference in the awarding of scholarships.) While it is an education in itself

for the student to work his own way, there are many valuable features of college life that must be foregone in order to earn a living. Students who have the necessary means will do well to devote any energy not needed in their studies to various extra-curricular activities rather than to earning their expenses. Because the opportunities for self-support are limited the student should hesitate to take over a money-making position unless he really needs to do so.

The student is advised not to enter the University without a reserve fund to provide for immediate needs or unexpected contingencies. This fund ordinarily ought to amount to at least $250, although it is preferable for new students to have a larger sum. The student needs time to get acquainted; to become adjusted to University methods and requirements; to systematize his University work; to learn about the various opportunities for earning money; and to discover how much time he can afford to devote to self-support and still make study his main object aside from keeping in good health. In general the student should not undertake to earn a larger proportion of his expenses than is absolutely necessary, for his time is too valuable for this and should be devoted to his studies to the largest extent possible. It is recommended that no new student plan to devote more than four hours a day to earning his expenses.

One of the most popular means of earning board at the University, whether for men or women, is by waiting on table. From two to four hours per day will cover the required time, which comes when it is least missed. Such chances are to be found in the dormitories, in cafés and boarding houses, and in public and private eating clubs, though competition for such positions is severe. In connection with the University dining halls and dormitories, there are opportunities for employment as waiters, bus boys, cashiers, soda fountain clerks, telephone operators, and typists, at the established rate of pay, fifty cents per hour. (Application should be addressed to the Director of University Dining Halls, Stanford University, California.) New students should make application as soon as registration has been assured.

Other forms of work for the relatively unskilled are gardening, housework, care of children, janitor service, special jobs in connection with gymnasium and athletic activities, manual labor in connection with laboratory sections, agencies for laundries and other concerns. Positions requiring more or less preliminary training have to do with plain cooking, clerking, bookkeeping, stenography and typewriting, music for dances, newspaper reporting, printing, tutoring, and the management of student enterprises. Other means of support are found in the scholarships and fellowships offered, and through the loan funds now available. A limited number of opportunities during the short vacations, particularly at Christmas time, can be found in San Francisco and elsewhere, as special postoffice clerks or salesmen in the larger stores.

New students who must begin earning as early as possible will do well to be on hand a short time in advance of the opening of the University and to come equipped with bicycles and working clothes. They should enroll promptly with the Appointment Secretary, Room 170, in the Administration Building and continue to report at the office daily until sufficient employment is secured. Women should discuss their plans also with the Dean of Women.

Assistantships

Student-assistant positions in the various departments are available for either graduates or undergraduates. There are opportunities for assistants in teach-

ing and laboratory work, assistants in quiz sections, in the reading of examination papers and reports, as well as a number of minor positions where mere labor without skill or special knowledge is required. These positions range in pay from $35 to $200 each per quarter, but are not ordinarily available to new undergraduate students.

Each department selects and recommends for appointment its own assistants. Requests for information as to pay and duties, and applications for appointment, should be addressed to the Executive Head of the department in which a position is sought.

TUITION NOTES

After the first quarter of registration in the University undergraduate students may defer payment of tuition fees by means of tuition notes. These notes, which cover tuition only and do not include community fees, are issued by the Dean of Men and the Dean of Women upon approval of the President. All undergraduates who are candidates for the degree of Bachelor of Arts may apply for tuition notes, with the following exceptions: Students registering at the Hopkins Marine Station, for Field Geology, or in the School of Medicine. Additional exceptions may be made in the future in the case of students registering for newly established courses.

Ordinarily, tuition notes are granted only to students who are contributing to their own support. Undergraduate students returning to the University after an absence of three or more quarters may not apply for tuition notes nor renew former applications until after one quarter of residence.

LOAN FUNDS

In general, cash loan funds are available only to applicants having a scholarship average of C or better, unless otherwise specified.

Loan Funds for Men and Women

Unless otherwise stated, application should be made to the Dean of Men:

Alumni Jordan Scholarship Fund.—Founded largely by physicians who were at one time students of Stanford University. Its purpose is to pay the tuition fees of several medical students of high standing, with the stipulation that at some future time the amount will be returned. The student who once receives this scholarship loan will be entitled to its use throughout his medical course, provided his work continues to be satisfactory. Application should be made to the Dean of the Stanford Medical School, San Francisco.

Stanford Alumni Association Graduate Loan Fund.—Loans are restricted to candidates for advanced degrees, preference being given to candidates for the Ph.D. degree. In making loans emphasis shall be placed upon character, scholarship, and intellectual promise in addition to personal need.

Stanford Alumni Association Undergraduate Loan Fund.—"For worthy undergraduates."

Associated Students Undergraduate Loan Fund.—For the benefit of worthy undergraduates who are members of the Associated Students of Stanford University.

William Burton Barber Loan Fund.—Established in 1914 by Mrs. Anna M. Barber, in memory of her son, William Burton Barber, '02, "to provide for needy and worthy students." This fund, increased by over $5,000 from the estate of Mrs. Jeannette Taylor, is available for men and women of the

senior class who have been registered in the University for at least one quarter.

Class of 1906 Loan Fund.—No restrictions except such as may be imposed by the Committee on Scholarship.

Horace Davis Loan Fund.—Mr. Horace Davis, charter member of the Board of Trustees, provided in his will a fund of $10,000, the interest of which is to be used as a loan fund for students.

George E. Farrand Loan Fund.—Established in 1928 by Mr. George E. Farrand for use by students upon such terms and conditions as may be determined by the Dean of Men, with interest at 6 per cent per annum until paid.

Richard Friedlander Memorial Fund.—Established in 1928 by the parents and friends of Richard Friedlander of the Class of 1926, for the purpose of aiding worthy students to complete their education. Interest at the rate of 6 per cent per annum until paid.

Dr. Robert Patek Memorial Loan Fund.—Established in 1921 by Mrs. Sadie Dernham Patek (Stanford, '11) in memory of her husband, Dr. Robert Patek. This fund, principal and interest, is to be loaned to medical students to assist them in completing their medical course. A student who has once received a loan from the Fund is entitled to receive additional loans until his graduation. The loans granted to students are to bear no interest for six years, then to carry an interest rate of 6 per cent until paid. Applications for loans are to be made through the President's Office.

John M. Switzer Student Loan Fund.—Mr. John M. Switzer (ex-'98) has presented to the Student Guild the sum of $500, which is to be used from time to time as an emergency loan fund to help tide over critical periods in the career of needy and deserving students who are trying to complete a course at Stanford.

Loan Funds for Women

Application should be made to the Dean of Women:

Chi Omega Loan Fund.—Established in 1927 by the local alumnae of the Chi Omega sorority for the use primarily of senior women.

Delta Gamma Memorial Fund.—Established in 1926 as an emergency loan fund for women students.

East Bay Stanford Women's Club Loan Fund.—Established in 1925 by the East Bay Stanford Women's Club.

Harker Alumnae Association Loan Fund.—Established in 1917 by the Alumnae Association of Miss Harker's School, a large number of whose graduates have been Stanford students. There are no restrictions except that if a graduate of Miss Harker's School applies she shall be given preference, other qualifications being equal.

Alice Windsor Kimball Loan Fund.—Established in 1928 by a group of friends of Miss Alice Windsor Kimball. The fund is to be used primarily for graduate and senior women, but is available to any Stanford woman student recommended by the Dean of Women.

Women's Student Loan Fund.—The Women's Student Loan Fund was organized by the Women's Conference through private subscription, and is increased yearly by small sums earned by a committee of the Conference. It is available for small emergency loans.

Loan Funds for Men

Application should be made to the Dean of Men:

Dean of Men's Loan Fund.—An emergency loan fund administered by the Dean of Men upon approval of the President. Interest at the rate of 6 per cent per annum until paid.

Romaine Josephine Stanley Fund.—Established in 1928 by Dr. L. L. Stanley for the purpose of rendering financial assistance to deserving medical students.

SCHOLARSHIPS

Administered by Stanford University

Funds given to the University for a beneficiary designated by the donor may be administered as a scholarship, provided the candidate has a C average at this University; or, if not already matriculated, has been selected for admission. The tenure of such scholarships is subject to the rules governing other scholarships, except that new first-year students may be given two quarters to attain a C average.

Applications for the following scholarships, unless otherwise specified, should be addressed to the Secretary of the Committee on Scholarship, and should be filed by April 1; applications for the E. C. Converse, William S. Cranston Memorial, and E. W. Hopkins Scholarships, which are awarded to entering undergraduate students, should be filed by June 15.

Anglo-California Trust Company Scholarship.—In 1927 the Anglo-California Trust Company established a scholarship for the purpose of training college men for the banking field, with the idea that upon graduation an opening in the Anglo-California Trust Company will be available for graduates who hold this scholarship.

Preference is given to graduates of the high schools of San Francisco or the Bay region. The scholarship consists of the sum of $350 a year, to be given annually by the bank and to be supplemented by a position in the bank during the summer vacation period. The student is chosen by the Committee on Scholarship, subject to the approval of the Anglo-California Trust Company, and he is to state his desire to follow a course at the University to fit him for a banking career and also his desire to follow this career with the Company upon his graduation. The tenure of the scholarship may be terminated at any time either by the Company or by the student in case the circumstances warrant.

Bertha Hyde Braly Scholarship.—In 1916 Mrs. J. M. Braly, of Fresno, established an annual scholarship of $250 in memory of her daughter, Bertha Hyde Braly, '97. The amount of the scholarship was increased to $300 by Miss Elizabeth M. Braly in 1921. The scholarship is available for a woman student who is a resident either of Fresno County or Santa Clara County.

Cap and Gown Scholarships.—The Cap and Gown Society established one scholarship in 1924, and another in 1927, to be awarded annually to a woman student. The amount available is $300 each.

E. C. Converse Scholarships.—In 1921 the University received a bequest of $50,000 from the estate of Edmund C. Converse for the establishment of the E. C. Converse Scholarship Fund. The income of this fund is to be used under the direction and at the discretion of the President or other ranking

executive of the University, in the establishment and maintenance of scholarships not exceeding $500 per annum, to be paid to needy and deserving students. Ten undergraduate scholarships of the annual value of $250 each have been created, five of which are reserved for entering students.

Mabel Hyde Cory Scholarship.—In 1921 Miss Emma L. Martin, '97, and her sister established a scholarship of the annual value of $500 in memory of Mabel Hyde Cory, '96, who died February 15, 1921. This scholarship is to be awarded preferably to a needy young woman in the Department of History.

William S. Cranston Memorial Scholarship.—In 1924 Mr. and Mrs. William M. Cranston established a scholarship of the value of $500 annually, in memory of their son, William S. Cranston. This scholarship is to be awarded to an entering student.

George E. Crothers Law School Scholarship.—In 1917 Judge George E. Crothers, of the class of 1895, established a Law School Scholarship of $250 to be awarded annually. Application should be made to the Dean of the School of Law.

Dickey Scholarships.—In 1914 the Trustees of the University received from the estate of the late W. J. Dickey, of Fresno, the sum of $10,000 for the establishment of the W. J. Dickey Scholarship Fund "to aid young men from Fresno County, preferably from Fresno city, to make their way through Stanford University." The fund provides for two scholarships of the annual value of approximately $237.50 each.

The donor has designated that the selection and appointment of candidates be made by the President of the University upon recommendation of the Committee on Scholarship, subject to the approval of the trustees of the Dickey Estate. The persons appointed must have been residents of Fresno County, preferably Fresno city, for at least two years prior to the appointment; and no scholarship may be held or shared by one person for more than four years. In accordance with the wish of the donor, the Committee in making its recommendation for appointments takes into consideration the character, scholarship, seriousness of purpose, and financial need of each candidate.

Henry G. Dodds Scholarship.—In 1921 Mr. Henry G. Dodds established a scholarship fund of $3,000 which in 1925 was increased to $5,000. The income from this fund (approximately $250) is to be awarded annually to a deserving young man preferably from the Pacific Coast.

Orrin W. Dunn Scholarship.—In 1923 Mrs. Harriet L. H. Dunn established a scholarship to aid in meeting the expenses of young men (who must be unmarried) attending Stanford University and registered in any of the various departments of engineering, chemistry, geology, or medicine, with sufficient credit to entitle them to junior standing. The donor has provided that the holder of the scholarship shall be selected by the President of the University. The annual value of the scholarship is $300.

Mrs. Cordelia Elkus Scholarship.—In 1928 Mr. Charles deY. Elkus established a scholarship of the annual value of $250 in memory of his mother, Mrs. Cordelia Elkus. This scholarship is to be awarded to a worthy and needy student, graduate or undergraduate, preferably one who is following or intending to follow the study of law.

Walter Mason Field Scholarship.—In 1927 Mrs. Nancy K. Field established a scholarship of the annual value of $300 in memory of her husband, Walter Mason Field.

Hiram C. Fisk Scholarship.—In 1920 Mr. W. D. Fisk established a scholarship in memory of his son, Hiram C. Fisk, who is on the Stanford Honor Roll. The amount now available is $250 per annum.

Florence Hecht Fries Scholarship in Medicine.—In 1925 Mrs. Dorothy Fries Lilienthal established a scholarship fund of $5,000 in memory of her mother, Mrs. Florence Hecht Fries. The income of this fund ($300) is to be awarded annually to a worthy and needy student preparing for the profession of medicine, the selection being made by the President of the University or by a properly authorized committee.

Gertrude Gardiner Scholarship.—In 1920 Miss Gertrude Gardiner established a scholarship of the annual value of $200, to be known as the Gertrude Gardiner Scholarship, and to be awarded to a non-sorority woman who has been a student in the University for at least two quarters and who is a resident of Roble Hall.

William F. Herrin Scholarship Fund.—In 1925 the University received from Mr. William F. Herrin, of San Francisco, a gift of $4,500, the income to aid deserving students who need or require such aid in order to obtain or complete their education. The annual value of the scholarship is $315.

Brodie G. Higley Scholarship.—In 1915 Mr. Brodie G. Higley, of the class of 1899, established, through the Alumni Association, an annual scholarship of $150, "open to either a man or woman undergraduate student who is in good and regular standing in the University, and to whom the money will be a real assistance." In 1919 Mr. Higley deposited with the Board of Trustees securities to the amount of $3,000 to perpetuate this scholarship.

The selection and appointment of the Brodie G. Higley scholar will be made by the President upon the recommendation of the Faculty Committee on Scholarship. Appointment will be made for the college year, but may be terminated earlier on recommendation of the Committee and at the discretion of the President.

Applicants for the scholarship must have been registered in the University for at least three quarters prior to the time of application. In making appointments it will be the purpose of the University to emphasize character, scholarship, and intellectual promise, as well as personal need. Ordinarily the scholarship will be payable in six equal installments, beginning October 1.

E. W. Hopkins Scholarships.—In 1923 the University received from Mr. E. W. Hopkins a gift of $25,000, the income to be used for paying the tuition of needy students. Five scholarships for entering students, of the annual value of $250 each, have been established; two of these are reserved for students entering with Upper Division standing.

Charles Andrews Huston Memorial Scholarship.—In 1923 Mrs. Margaret Huston established a scholarship as a memorial to her husband, Charles Andrews Huston, for many years Professor of Law and Dean of the Stanford School of Law. The holder is to be a student in the School of Law, nominated by the faculty and approved by the Committee on Scholarship. The annual amount available is $200. Application should be made to the Dean of the School of Law.

Ira S. Lillick Scholarship.—In 1920 Mr. Ira S. Lillick, of the class of 1897, established a scholarship of the value of $500 to be awarded annually to a worthy student, preferably in Law. Application should be made to the Dean of the School of Law.

Mrs. Ira S. Lillick Scholarship.—In 1920 Mrs. Ira S. Lillick established a scholarship of the value of $500 to be awarded annually to a worthy student, preferably in Law. Application should be made to the Dean of the School of Law.

Ernest A. Love Scholarship.—In 1920 Mr. and Mrs. Allan Love founded a scholarship of the annual value of $150 in honor of their son, Ernest A. Love, '18, who died in service in France. This scholarship is open to worthy and needy undergraduate men, preference being given to students from Arizona.

Mrs. McDowell Roble Club Scholarship.—The sum of $150 per year has been presented to the University by Mrs. John E. McDowell for the purpose of establishing a scholarship to be granted to a Roble Club member who has been a student in the University and a resident of Roble Hall for two years, the award being made at the close of the junior year.

Memorial Scholarship.—The trust establishing the Leland Stanford Junior Memorial Scholarship provides a fund of $6,000, the income of which shall be used "to pay the living expenses, cost of books, fees, and other necessary expenses of the holder." Under the present arrangement the Memorial scholar receives in cash $100 per quarter, or a total of $300 for the academic year. In addition the trust sets aside a room in Encina Hall for the use of the holder of the scholarship and for which no charge is made. Other things being equal, a student who has held the scholarship satisfactorily for one year shall have preference for the next.

Dorothy Metz Scholarship.—In 1920 Mrs. Lillian C. Metz established an annual scholarship of the value of $200 in memory of her daughter, Dorothy Amanda Metz, '17, who died in service, the scholarship to be awarded "to a worthy and ambitious student of limited means." In 1925 an endowment of $5,000 was left by Mrs. Metz in her will which increased the value of the scholarship to $238.75.

Robert S. and Florence Moore Scholarships.—In 1925 the University received from Mr. and Mrs. Robert S. Moore a fund of $3,000, the income to be applied to the support of some worthy student. The annual value of the scholarship is $140.

Maud Huntsberger Peck Scholarship.—In 1926 Mrs. Maud Huntsberger Gerity, '08 established a scholarship of the annual value of $300.

P.E.O. Scholarship of the Santa Clara District.—In 1926 the P.E.O. Sisterhood of the Santa Clara District established a scholarship to be awarded to a woman student who lives in the district. The amount available for the academic year 1929–30 is $300.

Francis Price Scholarship.—In 1930 Mr. Francis Price, of the Class of 1914 (J.D., 1915), established a scholarship of the value of $500, to be awarded annually to a student in the School of Law. Application should be made to the Dean of the School of Law.

Regional Scholarships.—These scholarships may be awarded to persons who meet the minimum requirements for admission to the University (fifteen acceptable high-school units), and who need this help in order to enter the University. Nominations and funds for regional scholarships will be received from the organized alumni of the region.

Dr. Emmet Rixford Scholarship Fund.—In 1921 Dr. Emmet Rixford, Professor of Surgery in the Stanford School of Medicine, made a gift of $500,

to be awarded annually to some graduate of Stanford School of Medicine or to some staff member of rank under that of assistant professor, to be chosen by the medical faculty, for work on some surgical problem, anatomical, physiological, pathological, or clinical, the problem to be approved by the faculty. In 1928 the unexpended balance of the fund, amounting to $1,000, was placed in a permanent fund to draw interest until such time as additional gifts will make the income sufficient to support an annual scholarship or fellowship.

San Francisco Lodge, No. 3, B.P.O.E. Scholarships.—Established in 1924, for a San Francisco boy, provided "that he be worthy, that he be in need, and that he be of good strong character." In 1925 a second scholarship was established. The student is permitted to attend the university of his choice. For the year 1929–30 one scholarship of $500 was awarded to a Stanford student.

San Francisco Polytechnic High School Scholarship.—In 1928 the Polytechnic High School of San Francisco established a fund of $3,000, the income to be devoted to an annual scholarship, preferably for a graduate of the Polytechnic High School. The amount available annually is $180.

Margaret Sidney Scholarship.—In 1924 Miss Margaret Lothrop established a scholarship in memory of her mother, Mrs. Daniel Lothrop. The preference is to be given a woman student who is interested in writing as a life work. The amount available is $300 annually.

Leon Sloss Fund.—In 1922 Mrs. Bertha G. Sloss established a fund of $5,000 in memory of Mr. Leon Sloss, one of the original trustees of the University, the income to be awarded annually to a needy student. At present this fund is being administered by the Scholarship Committee. The annual amount available is approximately $300.

Stanford (Anonymous) Scholarship.—In 1929 a scholarship of the annual amount of $300 was established by an anonymous donor.

Stanford Mothers' Club Scholarships.—In 1928 the Stanford Mothers' Club established two scholarships of varying amounts from year to year.

Stanford Resident Alumnae Scholarship.—In 1925 the Stanford Resident Alumnae voted to offer annually a scholarship of the value of $300, preferably for a woman student.

Stanford Student Chapter of the American Society of Civil Engineers Scholarship.—Established in 1925. The amount of $300 is available annually. Application should be made to the President of the Stanford Student Chapter of the American Society of Civil Engineers.

Stanford Women's Club of San Francisco Scholarship.—The provisions of this scholarship, established in 1924, stipulate that it shall be awarded preferably to a San Francisco girl and that the need of the student shall be the chief concern. The amount available annually is $150.

John Maxson Stillman Scholarship in Chemistry.—Established from the Stillman Testimonial Fund, presented to Professor John Maxson Stillman by graduates and former students in chemistry, and by others, on the occasion of his retirement from active service in the University, in May 1917. The amount available is $150 per year, and the scholarship is open to undergraduate or graduate students in the Department of Chemistry upon nomination by the department faculty and approval of the President. Application should be made to the Executive Head of the Department of Chemistry.

Palmer Wilkinson Taylor Scholarship Fund.—In 1927, the Trustees of the University received from the friends of Palmer Wilkinson Taylor, '19, a fund of $2,200, the income ($100) to be used for the establishment of an annual scholarship in his memory. The scholarship is to be awarded to a worthy student of the University, who shall be nominated by the President of the Stanford Chapter of the Sigma Nu fraternity.

Theta Sigma Phi Scholarship.—In 1929 Theta Sigma Phi established a scholarship of $250 for the academic year 1929–30, to be awarded preferably to a woman student in Journalism.

Harry A. True Memorial Scholarship.—In 1927 Miss Helen E. True established a scholarship of the annual value of $300 in memory of her father, Harry A. True. This scholarship is to be awarded to a needy and worthy student of the University.

University Graduate Scholarships.—In 1919 the Trustees of the University established for graduate students thirty Stanford scholarships, each paying $200 per year of three quarters, awarded for a term of one year, and allowing for the scholar's reappointment at the expiration of this time. In 1927 the Trustees established six University Graduate Scholarships of the value of $100 per quarter for four quarters. Holders of these scholarships are required to pay tuition and community fees, the graduation (diploma) fee, laboratory expenses, and all similar charges laid upon other graduate students.

Charles W. Willard Scholarship.—In 1925 the University received from the partners and family of the late Charles W. Willard a gift of $5,000, the income to be used to establish a graduate scholarship for advanced study in administrative, public health, or social service work. This scholarship is to be given only to graduates of the Stanford School of Nursing who, in the opinion of the Superintendent of the Hospital and the Superintendent of Nurses, are best qualified to pursue such advanced course of study. The annual amount available is $250. Application should be made to the Superintendent of Nurses, Stanford School of Nursing, San Francisco.

Henry Windt Junior Memorial Scholarship in Engineering Chemistry.—In 1927 the University received from Henry and Viola Windt a gift of $8,500 to establish a scholarship fund in memory of their son, Henry Windt, Junior. The income ($400) is to be awarded annually to a worthy student engaged in the study of engineering chemistry.

Administered by Other Institutions

Harvard Club Scholarships (for students residing in the neighborhood of San Francisco).—The Harvard Club of San Francisco offers two scholarships, of the annual value of $400 each, to students desirous of pursuing undergraduate studies in Harvard College, or postgraduate studies in Harvard University. Other things being equal, preference will be given to undergraduates. In awarding these scholarships the scholarly attainments of the applicants, as shown by their records, their character, needs, and general development will be considered. Applications should be made in writing, not later than February 15, to Professor George J. Peirce, Stanford University.

Rhodes Scholarships.—Under the will of the late Cecil Rhodes two scholarships are assigned to each state and territory in the United States. Each scholarship has a yearly value of £350, and is tenable at any college in the University of Oxford for three successive academic years.

Candidates must be unmarried, must be citizens of the United States, and must be not younger than nineteen nor older than twenty-five on October 1 of the year in which they are elected. All scholars, before going into residence, shall have reached at least the end of their sophomore year at some recognized degree-granting university or college. In accordance with the wish of Mr. Rhodes the trustees desire that "in the election of a student to a scholarship, regard shall be had to (1) his literary and scholastic attainments; (2) his fondness for and success in manly outdoor sports, such as cricket, football, and the like; (3) his qualities of manhood, truth, courage, devotion to duty, sympathy for and protection of the weak, kindliness, unselfishness, and fellowship; (4) his exhibition of moral force of character and of instincts to lead and take an interest in his schoolmates during school days."

FELLOWSHIPS

Administered by Stanford University

American-German Student Exchange Fellowship.—With funds donated by friends of the University for the purpose of furthering international understanding and good will, the Trustees of this University have established the American-German Student Exchange Fellowship. This fellowship is open to graduates or advanced students of German universities who desire to spend one year in advanced study and research at this University. The fellows are selected by the University authorities representing the Exchange in Germany.

American Smelting and Refining Company Fellowship in Chemistry.—Established in 1925 for three years and continued for the year 1929–30, for the purpose of investigating the sulphur dioxide problem. For the year 1929–30 the amount available is $600 plus $1,400 for expenses. Application should be made to the Executive Head of the Department of Chemistry.

Buckel Fellowship.—In 1914 the University established through the cooperation of the trustees of the estate of Dr. C. Annette Buckel, a research fellowship for the study of backward and feeble-minded children. The annual income from the Buckel estate is supplemented by a sum appropriated by the Trustees of the University, making the total amount available for the fellowship $500. Application should be made to the Executive Head of the Department of Psychology.

Teaching Fellowships in Chemistry.—The Board of Trustees established in 1917 two teaching fellowships in Chemistry. The amount available for 1929–30 is $750 each. Application should be made to the Executive Head of the Department of Chemistry.

DuPont Fellowship in Chemistry.—In 1928 E. I. duPont de Nemours and Company established a fellowship in Chemistry. For the academic year, 1929–30, the value of the fellowship is $750. Application should be made to the Executive Head of the Department of Chemistry.

Food Research Fellowships.—From time to time the Food Research Institute has funds available for one or more fellowships, awarded for three quarters for the purpose of promoting research upon food problems. Application should be made to the Executive Secretary, Food Research Institute.

Edward Curtis Franklin Fellowship in Chemistry.—Established in 1929 from the Edward Curtis Franklin Testimonial Fund, presented to the University by the students, associates, and other friends of Professor Franklin upon his retirement from active service in the University. The annual amount

available is $500 and the fellowship is open to any properly qualified candidate in the Department of Chemistry upon nomination to the President by the Department Faculty. Application should be made to the Executive Head of the Department of Chemistry.

Hammond Lumber Company Fellowship in Chemistry.—In 1929 the Hammond Lumber Company established a fellowship of $1,800 for the academic year 1929–30, for the purpose of investigation of the utilization of redwood waste from the lumber mills. Application should be made to the Executive Head of the Department of Chemistry.

High-Voltage Laboratory Research Fellowship.—In 1926 through an anonymous gift a fellowship carrying an annual stipend of $500 was established in the Electrical Engineering Department and designated by the authorities of the University the "High-Voltage Laboratory Research Fellowship."

The department promulgates high-voltage laboratory research in two categories:

I. Research undertakings as a department, in some or all of which the hearty co-operation of the holder of this fellowship will be desired.

II. Research undertakings with the approval, support, and guidance of the department to permit the definition and solution of a problem of particular interest to the individual student and of promise of helpfulness in education and practice. Application should be made to the Executive Head of the Department of Electrical Engineering.

Donald Porter Jacobs Research Fellowship.—In 1928 a gift of $5,000 was made by Mr. and Mrs. Albert P. Jacobs to establish a research fellowship fund in memory of their son, Donald Porter Jacobs. The income of this fund is to be awarded annually to a worthy graduate student in whatever field of study may seem most desirable at the time. The amount available for the academic year 1929–30 is $337.50. Application should be made to the Committee on Graduate Study.

Eric Knight Jordan Research Fellowship in Geology.—In 1926 Dr. and Mrs. David Starr Jordan established a fellowship fund in memory of their son, Eric Knight Jordan, to be awarded annually. The amount available for 1929–30 is $496. Application should be made to the Committee on Graduate Study.

George Loomis Fellowship in American Literature.—In 1929, Mrs. Kate Felton Neilson established a fellowship of the annual value of $1,000 to be awarded to a graduate student deemed best fitted to carry on advanced study "within the scope of the Charlotte Ashley Felton Memorial Library." This fellowship is to be awarded by the Committee on Graduate Study acting jointly with the Director of University Libraries. Application should be made to the Committee on Graduate Study.

Teaching Fellowships in Mathematics.—In 1926 the Department of Mathematics established two teaching fellowships of the annual value of $750 each. Application should be made to the Executive Head of the Department of Mathematics.

Physical Therapy Fellowship.—This gift, established by an anonymous donor in 1923, and to be known as the Rehabilitation Fund of the Medical School, provides a fellowship for six months. The amount available is $300. Application should be made to the Dean of the Stanford School of Medicine, San Francisco.

Fellowships in School Administration.—In 1919 a fellowship was established jointly by Professor Cubberley and the Board of Trustees, of the annual value of $500, and known as the Fellowship in School Administration. In 1924 a second fellowship of the same character and amount was established by similar joint action. Application for these fellowships should be made through Professor Cubberley.

Shell Research Fellowship.—In 1929 the Shell Development Company established a fellowship of the annual value of $900, to be used for the advancement of learning in the field of physical or organic chemistry. Application should be made to the Executive Head of the Department of Chemistry.

Thomas Welton Stanford Fellowship in Psychic Research.—From the "Psychic Fund," created by Mr. Thomas Welton Stanford, in 1913, the Trustees have established this fellowship for research in psychic phenomena.

Ruth Stern Fellowship for the Study of Diseases of the Nervous System.—In 1929 Mrs. Louis Stern established a fellowship to be awarded annually for the study of nervous diseases. For the academic year 1929–30, the amount available is $2,500.

Fellowship in the Study of Gifted Children.—In 1919 a fellowship for the Study of Superior Children was established jointly by Professor Terman and the Board of Trustees, the amount available varying from year to year. Application for this fellowship should be made through Professor Terman.

University Fellowships.—The Trustees of the University established in 1917 two University fellowships, and in 1919 six additional fellowships, of the value of $750 each per year of three quarters, to be awarded annually by the Committee on Graduate Study for the purpose of fostering advanced study and research in the University. In 1925 four additional fellowships of the value of $400 each were established. In general these fellowships will not be awarded to students in their first year of graduate study. Requests for re-appointment to University Fellowships, as well as new applications, must be in the hands of the Committee on Graduate Study by March 1 preceeding the academic year for which the fellowship is desired.

Royall Victor Fellowships.—In 1927, under the will of Charles F. Brooker, the sum of $117,054 was bequeathed to the University to establish the "Royall Victor Fund" in memory of Royall Charles Victor of the class of 1900. The annual income of this fund ($5,600) is to be used in providing fellowships for students of ability, character, and moderate means, preference being given to candidates, if any, of the requisite qualifications who reside or have resided in the state of Connecticut.

William Roberts Eckart Research Fund for Mechanical Engineering.—Together with his mother, sister, and two brothers, Professor W. R. Eckart, of the Department of Mechanical Engineering, established this fund, in 1923, as a memorial to his father, William Roberts Eckart, the income each year to be applied toward the furtherance of research in the Department of Mechanical Engineering, either by grants for research, for scholarships or fellowships, for prizes, or in any other manner which, in the judgment of the President of the University and the full professors of the Department of Mechanical Engineering, may seem most desirable to produce the best results.

For the present, the donors suggest that: (1) a prize of $50 or more, depending upon the amount of interest available, be awarded to that student in Mechanical Engineering presenting the best thesis during each college

year, this award to be known as the "William Roberts Eckart Prize in Mechanical Engineering"; (2) in judging the merits of the various theses submitted, the following points be considered: "conception, originality, analysis of problem, method of attack, experimental work, presentation of data, and results and conclusions drawn from same"; (3) the awards be made by a committee consisting of the full professors of the Department of Mechanical Engineering; (4) no award be made in any year in which no thesis of sufficient merit, in the judgment of the committee, is presented.

Administered by Other Institutions

American Field Service Fellowships for French Universities.—The American Field Service Fellowships have been established in order that advanced American students may avail themselves of the great advantages offered by the French universities in every field of science and learning. The fellowships are open only to men. A candidate (1) must be a citizen of the United States or of one of the United States' possessions; (2) must at the time of making the application be a graduate of a college of recognized standing or of a professional school requiring three years of study for a degree, or, if not qualified in either of these ways, must be twenty-four years of age and must have spent five years in work requiring high technical skill; (3) must be of good moral character and intellectual ability, and of suitable personal qualities; (4) must have a practical ability to use French books, both in general subjects and in his special field, and be able to speak French and understand lectures delivered in French.

Each fellowship has an annual value of $1,400 and is tenable for one year, with possibility of renewal for a second year if circumstances are favorable. Applications should be received by the Executive Secretary, American Field Service Fellowships, Institute of International Education, 2 West Forty-fifth Street, New York City, before January 1.

Commission for Relief in Belgium (C.R.B.) Fellowships.—In 1919 there was established an exchange of graduate students between Belgian and American universities under the auspices of the C.R.B. Educational Foundation, Inc. Application for these fellowships for Americans should be made before December 15 through the President's office, or directly to the Secretary of the Foundation, 42 Broadway, New York, N.Y.

John Simon Guggenheim Memorial Foundation Fellowships.—In 1925 Senator and Mrs. Simon Guggenheim announced a preliminary gift of $3,000,000 for the endowment of the John Simon Guggenheim Memorial Foundation Fellowships, in memory of their son. The purposes of the Foundation are "to improve the quality of education and the practice of the arts and professions in the United States, to foster research, and to provide for the cause of better international understanding."

The fellowships are open to both men and women, ordinarily between the ages of twenty-five and forty, who have demonstrated unusual capacity for original research or creative work, and are available for study in any country in the world.

The annual value of each fellowship is approximately $2,500. Application should be made to Henry Allen Moe, Secretary, John Simon Guggenheim Memorial Foundation, 551 Fifth Avenue, New York City.

GENERAL REGULATIONS

REGISTRATION

On the appointed registration days in October, January, April, and June, each student must obtain a certificate of registration *in person* at the Registrar's office.

Matriculated students may register after the appointed registration days upon payment of a special fee: two dollars on the first or second day, three dollars on the third day, four dollars on the fourth day, and so on up to the maximum of ten dollars. Registration of undergraduates (including special students) will not be permitted later than three weeks after the beginning of instruction. (For the summer quarter, registration is limited to one week for students enrolling for the first term only; two weeks for those enrolling for the whole quarter.) Places are not held for women, or for new Lower Division men, after the regular registration days, except by permission of the Committee on Registration granted in advance.

STUDY-LIST CARD

At the Registrar's office the student receives a card for selection of studies for the quarter. This card, properly filled out, and approved for Lower Division students by the Committee on Lower Division Administration, for others by the Major Department, must be filed with the Registrar at the time of registration; but late study cards will be accepted upon payment of a special fee of two dollars. Students registering late are admitted to particular classes only by permission of the instructor concerned. All work for which university credit is desired must be duly registered.

ENROLLMENT IN CLASSES

A student desiring to enroll in any class presents his certificate of registration to the instructor at the beginning of each quarter. (In certain Lower Division classes he must also present the seat card issued by the Lower Division Committee which assures enrollment.) Whether the student is qualified for enrollment in a particular class is a question to be decided by the instructor in charge. In general the prerequisites for taking any given course are noted under "Courses of Instruction."

CHANGE OF STUDIES

A student desiring to drop a subject once taken up, or to take up a new subject after the study card has been filed, must present to the appropriate committee a petition for such change, approved by the major department and by the instructors whose subjects are to be taken or dropped. In general, petitions so approved, and not involving courses required of Lower Division students, if they do not give the student too many unit-hours, or too few unit-hours, and if presented within two weeks after the beginning of the quarter, are granted without question. At the end of the first two weeks all study-lists are to be considered as fixed. After this period petitions to drop or take up courses are granted only for extraordinary reasons, and only on

payment of a special fee of two dollars for each course; if otherwise acceptable but presented after the close of the quarter, they will be granted only on payment of a special fee of four dollars for each course. During the last four weeks of the quarter no courses may be officially removed from the student's study-list for any reason whatever; but if failure to complete a course satisfactorily be due to illness or other unavoidable circumstance, application may be made to the Committee on Scholarship for such relief as shall seem equitable.

CHANGE OF MAJOR SUBJECT

Petitions to change the major subject will be granted when approved by the departments in charge of both the old and the new subjects, the student being held to all the requirements of the new major subject.

AMOUNT OF WORK

Graduate students are not held to any prescribed number of units, but ordinarily registration will not be permitted unless such students are prepared to devote at least half of their working time to university study.

The normal amount of work to be registered for each quarter by undergraduate students is fifteen units. Registration by undergraduate students for less than thirteen units of work is permitted in the case of students doing outside work for self-support, where considerations of health are involved, or for other reasons satisfactory to the Committee on Registration. All such programs of study must be approved by the Major Department or Lower Division Committee, and by the Committee on Registration.

Maximum limits upon the number of registered units which may be counted toward the 180 units required for graduation apply to the following classes of students:

1. Students in their first quarter of residence.—Upper Division students limited to 18 units; Lower Division students, to 16 units.

2. Students whose previous Stanford record falls below an average grade of B (grade-point rating of 2).—Limited to 18 units (except as noted below under 3).

3. Students who have completed at least 123 of the 180 units required for graduation, and whose previous Stanford record reaches an average grade of C+ (grade-point rating of 1.5); or whose record reaches in the three preceding quarters of residence an average grade of B (grade-point rating of 2).—Upon application to the Committee on Registration may be granted permission to undertake completion of the work for the degree of Bachelor of Arts in three quarters; students who have completed 140 units, under the above conditions, may apply for completion of the work in two quarters; students with 159 units, in one quarter.

4. Students who register for the first term of the summer quarter only.—Limited to 11 units. Such students should expect to receive, in each course where the instructor allows partial credit, one-half the number of units given for the quarter. They may, however, by arrangement with the instructor concerned, earn a maximum of three units for a course meeting five times per week, and two units for one meeting three times per week.

5. Students whose previous Stanford record reaches an average grade of B (grade-point rating of 2).—Counting value of approved program of study not restricted.

The grade-point rating is obtained by dividing the total number of grade points received by the number of registered units. The total number of registered units is the sum of all units registered for each quarter, less those which have been dropped by permission.

Petitions for irregular registration are to be presented at the beginning of the quarter.

Every unit for which credit is given is understood to represent approximately, for the average student, three hours of actual work per week, through one quarter. Thus, in lecture or recitation work, for one unit of credit one hour per week may be allotted to the lecture or recitation and two hours for preparation or subsequent reading and study on the part of the student; but if a less amount of time is allotted for preparation or subsequent reading or study, there shall be a proportionate decrease in the amount of credit. Where the time is wholly occupied with drawing, field, or laboratory work, or in the classroom work of conversation classes, three full hours per week through one quarter are expected of the student for each unit of credit; but where such work is supplemented by systematic outside reading or experiment under the direction of the instructor, such a reduction may be made in the actual drawing, field, laboratory, or classroom time as seems just to the department concerned.

INDEPENDENT STUDY PLAN

Any student in the Upper Division whose university record is of an average B grade, or who is deemed by his school or department to be specially qualified may, with the consent of the school or department, and with the approval of the Committee on Independent Study, enroll under the Independent Study Plan. This may be done at the beginning of the junior year, or at the beginning of any quarter thereafter, but it is urged that arrangements for enrollment be completed at the end of the preceding quarter.

The plan of study is arranged with the intention of providing a program of work both more comprehensive and more intensive than that of the average student, calling for greater initiative, more self-direction, a higher type of thinking, and leading to a comprehensive final examination or examinations. A faculty member of the school or department is the special adviser of the student. The student is supervised in his work through reports, theses, discussions, and conferences with the adviser, or, and to the extent that may be determined, through meeting the regular tests in particular courses.

Complete information regarding application and enrollment under the Independent Study Plan may be secured from the Committee on Independent Study.

SCHOLARSHIP HONORS

High scholastic attainment is recognized by the University in the following ways: By awarding honors upon the completion of the Lower Division, to about the upper tenth of the class; by conferring the degree of Bachelor of Arts "with distinction" upon about one-tenth of the graduating class, "with great distinction" upon about one-twentieth of the graduating class.

SCHOLARSHIP GRADES AND GRADE POINTS

In reporting the standing of students at the end of each quarter the following grades are used: A, B, C, D, passing grades, corresponding in a general way to the terms, "excellent," "good," "fair," "barely passed"; + passed (without defining grade); ± conditioned; (—) failed. In grading classes,

A is considered as normally applicable to not more than 15 per cent, B and C to 35 per cent each, and D to 15 per cent of the students of passing grade. (This distribution of grades is advisory, and is understood to admit of a certain degree of flexibility in the handling of small or advanced classes.)

Grade points are assigned to units of credit according to the quality of the work done, as follows: Units passed with a grade of A are given three grade points each; with a grade of B, two grade points each; with a grade of C, or +, one grade point each; with a grade of D, no grade points. For work marked "conditioned" or "failed," no grade points are given. A condition removed does not count grade points, no matter what the final grade may be.* (Advanced credit for work in other institutions counts one grade point for each unit of credit.)

CONDITIONS AND INCOMPLETES

A student conditioned or reported incomplete in any subject must remove the deficiency within one calendar year (interpreted as the succeeding four quarters of actual attendance), or the work will be considered a failure.

A deficiency due to failure to take or pass a written (final) examination is removed by passing a similar test on the same work. This may be done by taking a regular class examination in the course if repeated in time, or a special written examination to be held at any time after the third week of any quarter. A student is entitled to one examination within the year, either regular or special.

Where deficiencies are due to failure to take or pass an oral examination, the time for holding a new oral examination to remove the condition or incomplete is determined by the instructor concerned. Compliance with the regulations for written examinations, so far as practicable, is required.

Deficiencies due to other causes may be removed by any work or test satisfactory to the department concerned.

Only one examination to remove a condition is permitted. If an examination to remove an incomplete results in a condition, but one examination is allowed to remove it. Instructors will report grades on all such examinations to the Registrar. Any deviation from these regulations requires the approval of the Committee on Scholarship.

SCHOLARSHIP REPORTS AND NOTICES

At the end of the quarter each department is notified of all serious deficiencies in scholarship affecting students whose major work is in that department.

When a student is reported as seriously delinquent in scholarship, the fact is communicated to his parent or guardian.

PROBATION AND DISQUALIFICATION

Standard work is obtaining fifteen units, with as many grade points as registered units, per quarter. This standard applies to each quarter and also as an average standard to be maintained on the entire record of the student.

At the end of any quarter in the University a student who fails to obtain twenty-two counts (the sum of units and grade points) is placed on probation. At the end of the first or second quarter he is considered as failing in his studies, and is disqualified for further attendance at the University, if he

* For the revised system in force beginning with the academic year, 1930–31, see *Information Bulletin*, 1931.

does not obtain ten counts. At the end of subsequent quarters less than fifteen counts will result in disqualification.*

At the end of the second and every subsequent quarter the student's entire accomplishment is compared with what would have been obtained had he done standard work. If he is above, at, or even slightly below standard, his scholarship standing is considered normal. But if his deficiency becomes considerable the result is probation, and in serious cases disqualification.

Application for reinstatement is not ordinarily considered until the end of three quarters after disqualification. Reinstatement is granted only upon satisfactory evidence that the student has employed the period of absence from the University usefully, either in attendance at another educational institution or in some gainful occupation. Work in another institution must reach an average quality halfway between passing and one hundred; or, if the institution is a member of the Association of American Universities, one-third above passing. Work outside of a college or university must amount to at least seven months, and must show diligence, ability, and maturity of purpose.

A student who incurs a second disqualification is not eligible for reinstatement.

LEAVE OF ABSENCE IN CASE OF DELINQUENT SCHOLARSHIP

Leave of absence will not generally be granted to a student on probation, nor to any student whose work during the current quarter is unsatisfactory, unless applied for at least four weeks before the end of the quarter.

FROM SPECIAL TO REGULAR STANDING

Special students may be entered in regular standing on passing examinations in the required number of entrance subjects, provided such examinations are passed not later than two years after matriculation. (Entrance examinations are given in June by the College Entrance Examination Board; in September by the University, using the comprehensive question papers prepared by the Board.) In place of entrance examinations, university work to the amount of seven units for each entrance unit may be offered in university subjects which are also included in the entrance group. In case the student has met all Lower Division requirements, a request for change from special to regular standing involving a program leading to the Bachelor's degree may be granted without an arbitrary number of additional hours for graduation.

UNIVERSITY CREDIT FOR EXTRA ENTRANCE SUBJECTS

High-school subjects offered in excess of the fifteen units required for undergraduate standing may be credited toward graduation, with a maximum of seven university units for one entrance unit, under the following conditions: (1) The subject must anticipate a course or courses given in the University (e.g., advanced mathematics, the laboratory part of elementary chemistry, or a foreign language); (2) the student, during his first six quarters in the University, must either pass the regular quarterly examinations in the corresponding course, or else complete advanced courses in the University in the same subject with a grade not lower than B. Additional high-school units earned after matriculation may be offered only by special students and for the purpose of making up entrance deficiencies.

* For the revised system in force beginning with the academic year, 1930–31, see *Information Bulletin*, 1931.

UNIVERSITY CREDIT FOR SPECIAL COURSES

Matriculated students on leave of absence may take work in other universities, usually without any restrictions other than those imposed by the institution in question.

Work of a special character taken outside of regularly scheduled classes, *in absentia* or during vacation periods, may be credited under the following conditions: (1) The work must be acceptable as part of the major requirements for the degree of Bachelor of Arts in the department whose courses it parallels or supplements, must be given necessary supervision and direction by such department and subjected to tests equivalent to those in regularly scheduled courses, and must be approved by the major department and by the Committee on Admission and Advanced Standing; (2) such work may not be offered by students whose general scholarship record is unsatisfactory, or for covering deficiencies due to poor scholarship; (3) not more than forty-five units may be credited toward graduation for such special courses.

Ordinarily the last quarter's work of every candidate for a degree must be taken in this University; but in special cases, students who have obtained at least one hundred and thirty-five units in resident work, and who have completed all major department requirements, may be exempted from this regulation and permitted to complete the required number of units under the provisions noted above.

ADVANCED CREDIT

A student from an institution of equivalent rank may expect to receive the same standing relative to graduation as at the former institution, but not to exceed three years' advanced credit (one hundred and thirty-five unit hours toward graduation), and not without consideration of differences in the standard of entrance preparation and degree requirements. Every candidate must present a complete certified transcript of his college record, including entrance credit, and a letter of honorable dismissal.

Credits from recognized junior colleges are evaluated in terms of the amount of work completed, and the extent to which standard Lower Division requirements have been fulfilled. The maximum allowance for work in junior colleges is two years of university credit (ninety quarter units). Records involving work both in junior colleges and in accredited degree-granting institutions are given individual consideration and adjustment.

Recommended graduates of approved State Normal Schools, where the normal training has been preceded by a full four-year high-school course, or where high-school and normal-school courses together cover six years of work, may ordinarily be granted advanced credit of sixty-seven units. In the case of students from teachers' colleges which offer more than the two-year normal training, or which include junior college curricula, additional credit may be allowed if justified by the nature and amount of work completed.

In general, advanced standing for work done before matriculation will be given only when certified as having been completed in some institution of recognized collegiate rank, except as provided above for extra entrance units, or, in particular cases, to recommended graduates of approved State Normal Schools. But in special cases permission may be given by the Faculty to receive credit on examination for work equivalent to regular university courses. Application for such examinations, with satisfactory evidence of the work accomplished, must be presented to the Committee on Advanced Standing.

Applications for advanced standing on the basis of work done before entering the University must be made within two years after matriculation.

LEAVE OF ABSENCE

A student desiring to leave the University for a brief time should apply to the Committee on Registration. If leave of absence is desired on account of sickness, the petition must be indorsed by the medical adviser. During the last four weeks of the quarter, no petition will be granted except upon approval of the Committee on Scholarship. A leave of absence is merely a justification of the absence and not a relief from the work that has been missed, and is usually necessary only in case of interrupted work; a student in good standing absent one or more quarters may re-enter at the beginning of any quarter without formal petition.

HONORABLE DISMISSAL

An honorable dismissal means that the student is permitted voluntarily to withdraw from the University and is commended to the favorable consideration of any institution he may wish to enter. An honorable dismissal does not carry any implication as to scholarship and may be granted upon written application to any student not under discipline for misconduct.

CONDUCT OF STUDENTS

The Committee on Student Affairs exercises the authority of the University over all students individually with respect to personal conduct, and, with the exception of athletic and debating teams, over student organizations which bear the name of the University, or which represent the University in non-academic activities, and, in general, assumes such measure of authority over non-academic organizations of students as may be needful to safeguard the general good name and well-being of the University community.

Individual or collective student enterprises which involve the absence of the participants from the University, while using the University name must receive the official sanction of the Faculty Committee concerned.

In the government of the University the largest liberty consistent with good work and good order is allowed. Students are expected to show both within and without the University such respect for order, morality, personal honor, and the rights of others as is demanded of good citizens. Failure to do this will be sufficient cause for removal from the University.

In 1908 the Board of Trustees of the University provided that in all future rentals or leases of houses as fraternity chapter houses it shall be expressly stipulated that no intoxicating liquors of whatever kind shall ever be sold or used on the premises. The Trustees also by formal resolution requested the Academic Council to prohibit the use of liquor in fraternity chapter houses, student clubhouses, and other student lodgings.

This action of the Board of Trustees is in harmony with the instructions given by the Academic Council to its Committee on Student Affairs, and defines the policy of the University. Prohibition of the use of liquor extends to all student lodgings whether on the campus or elsewhere, and the University assumes that the act of registering as a student implies full acceptance of this policy.

STUDENT CONTROL

In 1911–12 the Faculty Committee on Student Affairs and the University Conferences entered into an agreement by which responsibility for the government of the students and for maintaining University standards was assumed by the men and women of the University. Since then the women have continuously discharged their responsibility, and the making and enforcing of the social regulations which govern women students are in their hands. The delegation of responsibility, temporarily recalled, for men, in 1918, was resumed in 1919–20, under an agreement between the President and the men of the University. The Men's Student Council is responsible for the enforcement of University rules governing conduct of men students, and all actions of the Council are submitted directly to the President for sanction or disapproval.

HONOR CODE

In 1921 the Honor System was established by the Academic Council of the University. Under this system, responsibility for honesty in the conduct of examinations rests (1) with each individual student, who is pledged not to receive or give aid in examinations, (2) with the major students of each department, whose duty it is to conserve and strengthen the system within the departments, and (3) with the Student Councils, who have general supervisory control and the power to adopt regulations and deal with infractions of the system in the same manner as other cases of discipline. In 1929 the designation "Honor System" was changed to "Honor Code."

UNIVERSITY HEALTH CONTROL

The Committee on Public Health.—This administrative committee of the Academic Council "considers matters pertaining to the health of the University community in consultation with the properly constituted authorities." It has "authority . . . . to require the observance of such limitations of University work and residence as may be deemed necessary in individual instances, and to require temporary or permanent withdrawal from the University when the interests of the student or the University may demand it. . . . ." "The University curriculum is adapted to students in normal health and physical development. Students whose health distinctly interferes with regular University work and residence will be required to withdraw or will remain strictly on probation with the Committee on Public Health." The Committee is authorized ". . . . to exercise the official powers of a local Board of Health when called into action by the County Health Officer."

The School of Hygiene and Physical Education.—The activities of the University "associated with. . . . the student and University Health Services are included as integral parts of the School of Hygiene and Physical Education for Men."

University Health Service.—The public health of the University community is safeguarded by the Committee on Public Health, the chairman of which is the University Health Officer, who is also a deputy county health officer. Regular inspections are made of premises, food supplies, and the handling of foods. Bacteriological examinations are made regularly of water supplies and swimming pools, and of samples of milk from all dairies that supply the community. Arrangements have been made with the Palo Alto

Hospital for the care of students with non-contagious diseases. An Isolation Hospital on University property is available for contagious cases.

Vaccination.—Not later than four weeks after the day of registration every student must file with the Committee on Public Health a certificate, signed by the vaccinator, who must be a duly licensed and practicing physician, giving exact dates of vaccination, and showing acceptable vaccination within seven years.

Non-compliance with these requirements will result in a fine of two dollars after four weeks, and cancellation of registration after five weeks from the day of registration.

Certificates are to be filed at the Registrar's office. They will be returned upon request. "Conscientious objections" will not be recognized as exempting anyone. Unavoidable delay, or failure to secure a satisfactory certificate, will not exempt anyone from the fine.

(It is advised that candidates comply with this requirement before coming to the University, and that vaccination certificates be sent in advance by mail. Blank certificate forms may be obtained on application to the Secretary of the Public Health Committee, at the Registrar's office.)

Student Health Service for Men

A health examination is required of all men students prior to the completion of matriculation. This first examination is in two parts. One is a rapid, thorough examination that is mainly physical, given before the student enrolls in his classes. The other is a leisurely conference with such additional procedures as may be necessary to complete the examination, during the first quarter of the student's attendance. Subsequently, required health examinations are repeated annually. Men who are found in such condition that they probably will be unable to carry the normal student program without health injury to themselves, or who are a menace to the health of their fellow-students, are denied matriculation or continued registration in the University.

All men planning to participate in athletics are required each season to pass satisfactorily a health examination before going into active training.

Important health advice is followed up in later required conferences in order to learn the use the student has made of the advice given. Those who fail to take reasonable care of incapacitating defects, or who expose others to health injury because of their lack of self-care, are not permitted to remain in the University.

Hours are scheduled every day, Saturday and Sunday included, in the offices of the Student Health Service for men who desire help in the solution of their problems of physical, emotional, or social health.

Medical Treatment.—The University does not enter upon the treatment of its students. Sick students should call at, or telephone to, the offices of the Student Health Service for help in securing the service of the private physicians or surgeons of their choice.

Emergency treatment may be given in the offices of the Student Health Service, safeguarding the student until the arrival of his own physician. The functions of this service are educational and advisory. Occasional minor services are rendered but every student is expected to have his own private physician on whom he should call in case of illness.

The staff of the Student Health Service is maintained in order that students may be given careful health examination and receive information

and advice that will help them understand and take intelligent care of their health problems. Consultation with experienced outside specialists, X-ray examinations, and laboratory tests may be secured without expense to the student in case the staff examiner finds such additional information necessary to his solution of a health problem.

Athletic Injuries.—Students training for, or participating in, athletic competition do so voluntarily and assume the risks incident thereto. Neither the University nor the Board of Athletic Control (which is a part of the University) has any legal responsibility or obligation to meet the expense of caring for injuries sustained by students because of athletic training or competition. Neither the University nor the Board of Athletic Control assumes such responsibility for students who enter into such training or competition. Nevertheless, the policy of the Board of Athletic Control is to pay, within reasonable limitations determined by it, the expense of the treatment of injuries received by athletes while training for or participating in intercollegiate sport, provided the injured athlete first secures the authorization of the Medical Adviser in charge of athletes, and subject at all times to the right to decline to give such aid or to discontinue further aid, when it is being given. Financial aid will not be given in case the injury is a result of the carelessness of the injured man. For instance, no such help will be given to the man who, having an old sinus trouble, goes on the swimming or water-polo squad and thus exposes himself to an almost inevitable return of sinus trouble; the athlete who neglects official directions to wear ankle straps or other safeguards should not expect to escape paying for his own carelessness in case of consequent injury; the athlete who fails to wear clean clothing and thereby becomes infected cannot expect the Board of Athletic Control to pay any medical or surgical bills that may be consequent to his carelessness.

(See also Announcement of *School of Hygiene and Physical Education for Men.*)

Student Health Service for Women

All women students entering the University for the first time are required to have a physical examination. This is given by the Medical Adviser of Women and assisting women physicians of Palo Alto during the week preceding registration. If any serious abnormal condition is disclosed, the student is withheld from entering. Advice is given concerning minor conditions which would be amenable to treatment and hygienic living.

During the first week of the quarter the Lower Division students and all women who are taking any work in the Department of Physical Education for Women receive an examination to determine, not only their fitness for athletic work, but the type of activity which would best meet their specific needs.

If the first examination has disclosed the need, it is followed by a second more detailed one and periodic "follow-up" examinations which insure the student's following out the procedures suggested. All girls who show any organic or functional derangements of heart, lungs, glands, etc., as well as all malnutrition cases, are required to report weekly or monthly, as the case requires, and advice is given as to daily hygiene.

Consultation hours.—Hours are scheduled daily, except Sunday, for voluntary consultation with the Medical Adviser.

Medical Treatment.—Emergency treatment for any illness or injury is supplied at the office of the Medical Adviser, or, if necessary, at the student's living quarters. If the illness is sufficiently serious to require hospitalization, the student is turned over to the physician of her choice, as the University does not undertake the treatment of its students aside from the emergency treatment.

In any case of illness an effort is made to supply all adjuncts in the way of laboratory analysis, X-ray examinations, or examinations by specialists, that will assist in an accurate diagnosis.

The house mothers of the various sorority houses and the Social Director of the women's dormitory are requested to send in daily reports of any illnesses in their respective houses. In this way the medical service is kept informed of any illness among the students, and prompt attention is given to them.

Athletic Injuries.—The University is not responsible for any accidents or injuries incurred in athletic sports or contests.

Students' Hospital Fund

The University does not maintain an infirmary or dispensary for the care of students who are ill. The Students' Hospital Fund is financed by the payment of $5 per quarter by each student as part of the Community Fee. This fund provides financial assistance to students needing medical treatment at the Palo Alto Hospital, at the Stanford University Hospital in San Francisco, or at the Isolation Hospital located on University property. Charges for calls at a doctor's office, or for visits by a doctor to a patient's home, must be paid by the student. But, in the case of a student being admitted to the hospitals operated by the University in Palo Alto on request of the Medical Adviser or a local physician, or in San Francisco on request of the Medical Adviser, rebates for service will be paid from the Student Hospital Fund in accordance with the following regulations:

1. Students will be allowed four dollars a day toward the regular hospital fee for the first seven days, and two dollars a day after the first seven days for a total of not more than thirty days. Allowances for longer stays will be determined by the Committee.

2. Of the total bill presented by a physician for hospital visits (medical cases), the Students' Hospital Fund will pay toward the total cost a sum not to exceed $15 for the first week, and not more than $1.50 toward the cost of each visit.

3. Twenty-five per cent of the charge for an emergency operation, this amount not to exceed $25. In operative cases students will not be eligible for the benefits of the Students' Hospital Fund unless the operation is of an emergency character.

4. X-ray and laboratory fees, charges for the use of the operating room and for anaesthetics, and charges for the application of casts.

The foregoing charges are paid only in the event of a student's being admitted to a hospital on the order of the Medical Adviser of Men, the Medical Adviser of Women, or of one of the local physicians, as outlined above.

The University cannot advise students in regard to the choice of physician.

VOCATIONAL GUIDANCE

The Committee on Vocational Guidance is maintained for the purpose of "disseminating among students the information necessary to make an intelligent choice of a vocation and to arrange a course of study preparatory to entering the vocation chosen." In accordance with this purpose the Committee has prepared a bulletin of *Vocational Information* dealing with the vocations which university graduates enter, which will be mailed to any address on receipt of twenty-five cents. The University Library maintains a section of books and pamphlets which are available to students who wish to make a more extended study of vocations.

In order to supplement the *Vocational Information* bulletin and to aid students in easily securing references on careers the Committee has prepared annotated bibliographies for each of the vocations that are of special interest to college men and women. These bibliographies are in the hands of advisers, librarians, and members of the Committee. Students may obtain copies from heads of departments or from the Secretary of the Committee, at the Registrar's office.

The Committee is developing an extensive list of men and women who are in a position to discuss with students the opportunities and drawbacks of the various careers. Students desiring such personal conferences should consult regarding appointments with the heads of their own departments, the Deans of Men and Women, or the Secretary of the Committee.

The Strong Vocational Interest test, which has been developed at Stanford University, aids students in interpreting their interests as they pertain to vocational activities. Students desiring to take this test should apply at the Registrar's office.

While a student is expected to choose a vocation before or during his course of study, the University does not attempt to give full training for this vocation. It is believed, however, that one who has met the requirements for graduation from a given department and has made a wise selection of special courses, both in the major department and in other departments, will have an excellent foundation for the vocation he has chosen. After graduation it may be necessary to do graduate work in another institution; or to serve as an apprentice; or to take a minor position which may ultimately lead to a permanent vocation.

APPOINTMENT OFFICE

The office of the Appointment Secretary is located on the second floor of the Administration Building in Room 170. The duties of this secretary are briefly as follows:

1. To assist students and graduates of the University to obtain permanent employment or promotion in the kind of work for which they have prepared themselves.

2. To help students of the University who are earning part or all of their own expenses to find suitable part-time employment.

3. To help students to find full-time temporary employment, whether the purpose be merely to earn money or to become more proficient in their chosen field of work.

4. To give inquiring students and graduates as accurate information as possible regarding the actual opportunities presented by the different fields of employment. The investigation which this work involves is an important feature of the Appointment Secretary's duties.

Statistics covering the work accomplished are compiled annually, and copies of these are available for other colleges and universities, and for anyone personally interested, upon request.

The Appointment Secretary aims to secure and keep on file a complete record of the education, experience, and personal qualifications of each applicant for a position, to be used by prospective employers in determining whether or not the applicant is qualified for the position to be filled. In order that the statements made may be frank and reliable, they are never shown to applicants.

The University reserves the right of refusing to extend its co-operation to applicants who apply for positions for which they are manifestly unfit.

Forms for registration may be obtained of the Appointment Secretary upon request. When asking for forms it is necessary to state whether part-time, temporary, or permanent employment is wanted, and, in the case of permanent employment, whether teaching or some other profession.

Teachers must renew registration annually, preferably in September. Registration after February, though permissible, seriously interferes with placement. Those desiring permanent employment other than teaching should renew their registration the first of every month—particularly the first of September, which is the beginning of the fiscal year. Those seeking part-time or temporary employment must renew registration at the beginning of each quarter. The responsibility of renewing registration is placed upon the applicant.

New students who expect to earn part or all of their expenses at the University should apply to the Appointment Secretary for registration forms as soon as possible after being assured of admission to the University.

At the time of registration, applicants for permanent positions are charged a nominal fee to cover cost of compiling an accurate personnel record designed to serve during the whole lifetime of the individual. A small charge is also made for editing, copying, and mailing records. All classes of applicants are charged for telephone and telegraph bills incurred in their behalf. No charge is made for services rendered applicants for part-time or temporary work, and no charge is made for the securing of positions of any kind.

All communications should be addressed to The Appointment Secretary, Stanford University, California.

DEGREES AND TEACHING CREDENTIALS

DEGREES

Candidates may be presented for graduation in January, April, June, and October.

No degree will be conferred upon any person who has not spent at least three quarters in resident study at the University. No honorary degrees are given.

LOWER DIVISION REQUIREMENTS

The Lower Division consists of the first and second years of the University curriculum. Its object is to introduce the student to fundamental fields of human interest, and to this end it requires the completion of certain studies during the first two years. To the students enrolled in the Lower Division the members of the Committee on Lower Division Administration stand in the same relation as that occupied by departmental advisers toward their major students.

Under the supervision of the Committee on Lower Division Administration, the work of the first two years is divided into three groups. Every student is required to take at least *nine units* in each of these groups each year. The requirements are as follows:

Group I.—Language and literature (English and foreign). Formative art (including graphic art and drawing courses in the Engineering Departments).

a) Fifteen units (two high-school years) of each of two foreign languages, or twenty-two units (three high school years) of one foreign language. (If this amount has been done in high school, the Lower Division does not require additional work.)

b) English A during the first year, provided the student has failed to pass the matriculation test in English.

c) Six units of English composition (English 2*a* and 2*b*) during the second year.

d) Electives to make up the required total of eighteen units (nine units each year) of languages and literature, if the above requirements have not totaled that amount.

Group II.—Natural sciences, mathematics (applied mathematics, biology, botany, chemistry, engineering, geology, logic, mathematics, military science, mining and metallurgy, physics, psychology, zoölogy, and entomology).

a) Nine units of biological science, physics, or chemistry during the first year.

(1) Biological science for those who have completed a high-school year of physics or chemistry only.

(2) Physics or chemistry for those who have completed a high-school year of biological science only.

(3) Biological science and physics or chemistry (a total of eighteen units) for those who have completed neither a biological science nor a physical science in high school.

b) Electives to make up the total of eighteen units (nine units each year) in the group.

Group III.—Social sciences (history, political science, economics, philosophy, and education).

a) Twelve units of citizenship in the first year.

b) Nine units of history in the second year.

(1) Any history course numbered under 50 for those who have had both American and general history in high school.

(2) American history (21, 22, 23) for those who have had only general history in high school.

(3) General history (10, 11, and 12, or 16 and 17) for those who have had only American history in high school.

(4) Both general and American history (a total of eighteen units) for those who have had neither in high school.

Students transferring from other institutions with advanced standing will be relieved from such of the requirements of the Lower Division as, in the judgment of the Committee on Lower Division Administration, they have substantially completed elsewhere. Such students should consult the Lower Division office.

The requirements of the Lower Division may be anticipated to some extent by the proper choice of subjects presented for entrance credit. These may well include: three units in one foreign language or two units in each of two foreign languages, one unit in a biological science, one unit in physics or chemistry, and two units in history. Of the latter, one unit should be in United States history and one unit in Ancient, European, or English history. This is especially to be recommended when an engineering course has been definitely chosen, in which case trigonometry should also be included.

Most of the science departments in the University, including the School of Medicine, require a reading knowledge of French or German for graduation, and German is required for all advanced degrees in the Chemistry Department. It is advantageous to begin these languages before matriculation.

All undergraduates enrolled in the Lower Division, with the exception of those registered in the Military Department, are required to devote to physical training three schedule hours per week, for a maximum of six quarters.

MAJOR DEPARTMENT REQUIREMENTS

The selection of a major subject will be made ordinarily at the end of the second year, upon completion of the requirements of the Lower Division. The Lower Division student may, however, at the beginning of any quarter designate the particular department in which he expects later to do his major work, and will then be directed to the department for consultation and advice regarding electives before making up his study-list.

At the beginning of the junior year, and upon completion of the Lower Division requirements, the student selects as a major subject the work of some one department. The major department has the authority to prescribe not more than sixty units in the major subject (exclusive of elementary courses in the major department which may be offered for entrance). The major department shall also recommend such other courses as may be considered desirable, and shall exercise an advisory supervision over the student's curriculum from quarter to quarter. It shall be considered a general principle of University policy, to be departed from only in exceptional cases, that at least ninety of the one hundred and eighty units required for the degree be taken outside of the major department.

In applied science the major department may prescribe as much of the entire one hundred and eighty units as it shall deem essential to the technical or professional requirements of the major subject.

Within these limitations the work in all departments is elective, and the student may freely choose any course which his previous studies have prepared him to undertake.

(A student in regular undergraduate standing who does not intend to become a candidate for the degree of Bachelor of Arts may choose, with the approval of the Lower Division Committee, or of the Major Department, any course in the University which his previous training has prepared him to undertake.)

BACHELOR OF ARTS

The degree of Bachelor of Arts (A.B.) is conferred upon candidates who have fulfilled the following requirements:

1. The completion of one hundred and eighty (quarter) units of university work, including the required Lower Division courses, together with the required physical or military training. (A special student who has completed two hundred and twenty-five units of university work, including all Lower Division and major requirements, and whose general university record is deemed proof of superior scholarship, may become a candidate for graduation on approval of the Committee on Admission and Advanced Standing; but ordinarily petitions to this end will not be considered by the Committee until after the student has completed one hundred and eighty units of university work.)

2. The acquirement of as many grade points as there are units registered on the candidate's record card.*

3. The completion of the major subject requirements as prescribed by the major department.

The recommendation of the major department is necessary to graduation.

Forty-five units constitute a normal year's work (see p. 146); but the ordinary class divisions (freshman, sophomore, junior, senior) are not recognized by the University. The degree is conferred whenever the requirements are met, without regard to the time spent, except that at least forty-five units (including, except in special cases, the last fifteen) must be completed in this University.

If graduates of other universities desire to become candidates for the baccalaureate degree, the question of units required for graduation may be waived, upon approval of the Committee on Admission and Advanced Standing, and the degree conferred on the satisfactory completion of not less than forty-five units of university work and the fulfillment of all major and minor requirements.

As a recognition of high scholastic attainment the Bachelor's degree may be granted "with distinction" or "with great distinction."

MASTER OF ARTS

The degree of Master of Arts (A.M.) is conferred on recommendation to the Academic Council by the Committee on Graduate Study, upon the satis-

* Under the revised grade-point system in force beginning with the academic year 1930–31, twice as many grade points as registered units will be required.

factory completion of one academic year of graduate work at this University, the presentation of an approved thesis, and the passing of such general or final examinations as may be set by the school or department.

For admission to candidacy a Bachelor's degree from this University, or evidence of equivalent training, is required. In no case will the degree be granted unless the student has been registered for three quarters after completing the requirements for the Bachelor's degree. A longer period of residence will be necessary for students who are inadequately prepared or who devote less than the normal amount of time to their studies.

Admission to candidacy is granted by the Committee on Graduate Study on the basis of an application, approved in writing by the school or department in which the candidate proposes to take the degree, and filed with the Registrar not later than the fourth week of the second quarter of residence. This application should include the subject of the proposed thesis and a program of study approved by the school or department. Applications once submitted must be kept on file and may not be withdrawn even if substitutes are filed and accepted. At least two-thirds of a year's work must be devoted to advanced or graduate study in the major subject or in closely allied subjects. Work may be done in connection with regular courses, or, as research, independently of them.

A thesis presented for the degree of Master of Arts should show that the candidate has ability to do independent thinking. A copy of the thesis, bearing the approval of the instructor under whose supervision it was prepared, must be submitted to the Committee on Graduate Study by the date on which instruction closes for the quarter in which the degree is to be conferred. This copy shall be the original, not a carbon copy, typed on paper of standard size and weight, with a title page of the form prescribed by the Committee, and suitably bound. The thesis upon acceptance will be placed in the University Library.

MASTER OF BUSINESS ADMINISTRATION

The degree of Master of Business Administration (M.B.A.) will be conferred, upon the recommendation of the Committee on Graduate Study, when the student has satisfied the requirements laid down by the faculty of the Graduate School of Business.

ENGINEER

Admission to candidacy.—Admission to candidacy for the degree of Engineer is granted by the University Committee on Graduate Study to the holder of a Bachelor's degree from this University, or its equivalent, on the basis of an application (1) made in quadruplicate on the blank provided by the Registrar's Office, (2) setting forth the program of study and the subject of the thesis, (3) formally approved by the student's major department, (4) formally approved by the School of Engineering, and (5) filed with the Registrar not later than the fourth week of the quarter preceding that in which the degree is to be granted.

Applications once submitted must be kept on file and may not be withdrawn even if substitutes are filed and accepted.

Residence.—Six quarters in residence are required for the degree of Engineer. A longer period of residence will be necessary for candidates who are inadequately prepared or who devote less than the normal propor-

tion of time to their studies. The residence requirement may be waived in part in exceptional cases by the University Committee on Graduate Study upon recommendation of the department and approval of the School of Engineering.

Program of study.—The program of study must satisfy the student's department and include ninety units of which at least sixty units must be devoted to advanced or graduate study in the major subject or intimately allied subjects.

Approval of application.—The student should present in duplicate his application for admission to candidacy, made as directed under (1) and (2) above, to his major department.

The department will approve the application upon satisfactory evidence that the student is adequately prepared to complete the accepted program of study and that he is likely to complete the program within the scheduled time and in a creditable manner.

The department will transmit each approved application for admission to candidacy for the degree of Engineer through the prescribed channel to the University Committee on Graduate Study.

Thesis.—A copy of the thesis, bearing the approval of the instructor under whose supervision it was prepared, must be submitted to the University Committee on Graduate Study by the date on which instruction closes for the quarter in which the degree is to be conferred. This copy shall be the original, not a carbon copy, typed on paper of standard size and weight, with a title page of the form prescribed by the University Committee on Graduate Study, and suitably bound. The department may require a second copy of the thesis for the department files. The thesis upon acceptance will be placed in the University Library.

Examinations.—Final or general examinations of the candidate may be prescribed by the School or department.

Recommendation.—Upon the satisfactory completion of the foregoing requirements and the receipt of the written recommendation of the department bearing the written approval of the School, the University Committee on Graduate Study will recommend that the University confer upon the candidate the degree of Engineer in the department and subdivision of engineering in which his thesis lies.

DOCTOR OF EDUCATION

The degree of Doctor of Education (Ed.D.) is conferred upon recommendation of the Faculty of the School of Education and the Committee on Graduate Study, on students who complete, in a satisfactory manner, the program of advanced study in Education as prescribed by the Faculty of the School of Education, submit a satisfactory thesis, and give evidence as to broad and substantial scholarship in the selected fields. This degree is of two types: (*A*) the Administrator type, and (*B*) the Master-Teacher type. The minimum time requirement is the same for each type, and the general requirements for either type of degree are intended to be substantially as difficult as those for the Ph.D. degree, but somewhat different in type. A description of each type of the Ed.D. degree is given in the *Announcement of the School of Education.*

BACHELOR OF LAWS

The degree of Bachelor of Laws (LL.B.) is conferred upon students who have received the degree of Bachelor of Arts, or its equivalent, from this University or from some other institution of recognized collegiate rank, and who have thereafter satisfactorily completed courses in Law aggregating 117 units, including therein all first-year professional courses, and who have devoted nine full quarters of time to the study of Law and have otherwise satisfied the requirements of the University and of the School of Law.

JURIS DOCTOR

To be admitted to candidacy for the degree of Juris Doctor a student must be eligible for admission to the School of Law in regular standing, must have completed the work for the first degree in law at this University, or in some other university law school of recognized standing in which work for the first degree in law covers a period of not less than six years of combined academic and law work, and must be approved for candidacy by action of the Law Faculty. For this purpose there must be furnished a complete and official transcript of the academic and professional work of the applicant, showing in detail courses pursued, grades received, and the degrees conferred. This transcript should be sent by the proper official directly to the Dean of the School of Law. Students who have met the foregoing requirements and who have completed with a high average and otherwise to the satisfaction of the Law Faculty thirty-two units of work in law courses not previously taken, including therein at least eight units to be selected from courses numbered 280 to 286, as set forth in the announcement of the School of Law, and who have in addition submitted an acceptable thesis on a legal problem approved by the Faculty, will be granted the degree of Juris Doctor (J.D.).

DOCTOR OF MEDICINE

The degree of Doctor of Medicine (M.D.) is conferred upon recommendation of the Committee on Graduate Study, on students who complete the five years' curriculum in Medicine (which includes the interne year), based upon the three years' pre-medical course as laid down by the University.

DOCTOR OF PHILOSOPHY

General Regulations.—The degree of Doctor of Philosophy (Ph.D.) is conferred on recommendation to the Academic Council by the Committee on Graduate Study, upon evidence of substantial scholarship, high attainment in a particular field of knowledge, and ability to do independent investigation and present the results of such research. For admission to candidacy, a Bachelor's degree from this University, or evidence of equivalent training, is required. After admission to candidacy each candidate must satisfy the foreign-language requirement, pass an oral examination, present an acceptable dissertation, and, in certain cases, pass a second oral examination, before the Committee on Graduate Study will recommend the candidate for the degree. A minimum of three years (nine quarters) of graduate study satisfactorily completed is required of candidates; at least one of these years, ordinarily the last, must be spent as a resident student at Stanford University.

All applications or petitions to the Committee on Graduate Study must be submitted to the school or department concerned for approval before being filed with the Registrar. Communications should be addressed to the Dean of Graduate Study, Registrar's Office, Stanford University, California.

Admission to Candidacy.—Admission to candidacy is granted by the Committee on Graduate Study on the basis of an application approved in writing by the school or department in which the candidate proposes to take the degree. Each prospective candidate should consult the executive head of the school or department concerned, and such other faculty members as he may choose, in regard to his qualifications and program of study. Application for candidacy should be made on a blank obtained at the Registrar's Office and filed with the Registrar, ordinarily during the second year of graduate study, or not later than the fourth week of the last academic year of candidacy. Applications once submitted must be kept on file and may not be withdrawn even if substitutes are filed and accepted. The application should name a major subject and one or two minor subjects, and should contain a program of study and state the subject of the dissertation. Approximately two-thirds of the proposed program of study should be devoted to the major, but in exceptional cases one or both minors may be waived by the Committee on Graduate Study, upon recommendation of the school or department concerned.

Foreign Language Requirement.—Applications for admission to candidacy must be accompanied by certificates stating that the student possesses a reading knowledge of French and German. In special cases, with the approval of the school or department, and the Committee on Graduate Study, another foreign language may be substituted for French or German when such substitution is justified by the literature of the applicant's general field of study. The certificates shall be issued by examiners designated by the Committee on Graduate Study.

Oral Examination.—When a candidate has shown special ability in his field of study and has proved his capacity for independent investigation, to the satisfaction of the school or department concerned, he may arrange through the Dean of Graduate Study for an oral examination. The purpose of the examination is to test the candidate's command of his major and minor fields and to confirm his fitness for scholarly pursuits. This examination shall be held not later than the eighth week of the last (academic) year of candidacy and should be about three hours in length. The examining committee shall include (1) the Dean of Graduate Study or his delegate presiding, (2) the professors in the school in which the major subject lies, (3) the professor or professors in charge of the minor subject or subjects if lying in another school. The schools are Biological Sciences, Engineering, Hygiene and Physical Education for Men, Letters, Social Sciences, and Physical Sciences. The Department of Philosophy, the School of Education, the Food Research Institute, or the Graduate School of Business may for this purpose be designated by the Dean of Graduate Study as a temporary member of any of the schools. Any member of the Academic Council may attend and take part in the examination. The candidate may be recommended to the Committee on Graduate Study for final acceptance only upon the favorable vote of three-fourths of the members of the Academic Council present and voting.

Dissertation.—Recommendation for the degree shall be made only after the acceptance of a dissertation, which must be a contribution to knowledge

and the result of independent work, expressed in satisfactory form. At least four weeks before the last day of instruction in the quarter in which the degree is to be conferred, the candidate must deposit at the Registrar's Office (1) three typewritten or printed copies of the dissertation, (2) an abstract of its contents, and (3) a brief biography, all approved by the school or department. Upon the deposit of the dissertation, the Dean of Graduate Study shall appoint a special committee of three whose duty it shall be to read the dissertation, conferring with the candidate if it so desires, and to report to the Dean of Graduate Study whether or not in its opinion the dissertation is of a scope and quality acceptable in fulfillment of this requirement for the degree.

The special committee on the dissertation may at its discretion accompany its report with a recommendation that the candidate be required to pass a second oral examination of specified scope. This examination shall be given by a committee consisting of the Dean of Graduate Study, or his delegate presiding, a professor selected by the school or by each of the major and minor departments, and additional members to a total of five, appointed by the Dean of Graduate Study. A majority vote shall be necessary for recommending the candidate to the Committee on Graduate Study for the degree.

Dissertation, Biography, Abstract, and Deposit.—Directions regarding the form of the dissertation, title-page, bibliography, abstract, and biography may be obtained at the Registrar's Office. After its final acceptance, the Registrar shall order the three copies of the dissertation bound at the expense of the candidate. Two of these copies shall be made available for loan from the University Library. The abstract, 500 to 2,000 words in length, will form a part of a volume issued annually by the University. Each candidate shall make a deposit (approximately $35) at the Comptroller's Office, on or before the last day of instruction in the last quarter of candidacy, to cover the cost of binding his dissertation and his share of the cost of publishing the volume of abstracts.

ADVANCED DEGREES IN THE SCHOOL OF MEDICINE

The departments of the School of Medicine are considered as equivalent to other departments of the University in respect to candidacy and requirements for the degrees of Master of Arts and Doctor of Philosophy, and all the foregoing regulations apply to these departments and department faculties as to departments and department faculties at the University, with the following modifications and limitations:

1. Candidates for these degrees must have received the degree of Bachelor of Arts at Stanford, or an equivalent training elsewhere, and must have the approval of the department faculty in which the degree is sought. The degree of Doctor of Medicine will ordinarily be required as a prerequisite for those wishing to do clinical work.
2. Time spent in candidacy for the degree of Master of Arts or Doctor of Philosophy will not be counted toward the degree of Doctor of Medicine.

TEACHING CREDENTIALS

This University acts as agent for the State Board of Education of California in the matter of credentials for teaching, and also recommends to the proper educational authorities in other states, as is indicated in the pages which follow.

All students who intend to prepare for teaching are urged to confer with the Secretary of the School of Education at the beginning of their junior year regarding lines of preparation, desirable combinations, requirements, and similar matters, so that the most advantageous grouping of courses and the most economical arrangements of work and time may be made.

As a physical and mental health certificate of an applicant is now required from the University authorities by the state, all students who intend to prepare for teaching are also urged to confer, early in their course, with the Medical Adviser of Women, Dr. Bertha Stuart Dyment, or the Medical Adviser of Men, Dr. Thomas A. Storey. All prospective candidates for credentials will then be advised regarding physical and mental conditions which might later, if uncorrected, prevent the granting of the teaching credential.

A candidate for any type of credential at Stanford University must complete at least one full year of residence. The School of Education has ruled that all work done in graduate standing must be of C grade or above, to be counted for credential requirements.

Teachers' certificates are issued by County, and City and County Boards of Education under the provisions of Section 1519, subdivision 5 (*a*), Section 1775, subdivision 1 (*a*), and Section 1792 of the Political Code of California. The State Board of Education of California, in accordance with the law, is empowered to issue teaching credentials, valid throughout the state, upon which County, and City and County Boards of Education may in turn issue certificates. This University, through its School of Education, has been empowered to grant credentials to students who meet requirements laid down by the State Board of Education, of nine grades: (I) Elementary, (under certain circumstances), (II) Junior High School, (III) Secondary, (IV) Junior College, (V) Special, (VI) School Administration, (VII) School Supervision, (VIII) Educational Research, and (IX) Preliminary Credentials, the last being valid only for cadet teaching in connection with Education 202.

Certificates are granted on the basis of the School of Education Credentials, after these have been countersigned by the proper state authority, and are valid for teaching as described below. California credentials may be obtained under the following conditions:

I. THE ELEMENTARY SCHOOL CREDENTIAL

(Valid for teaching in the elementary schools of the state.)

An applicant for the Elementary School Credential must present the following:

1. A Bachelor's degree from this University.
2. A certificate that the applicant is physically and mentally fit to teach.
3. Completion of 36 quarter units of work in Education, including:
   - *a*) Introduction to the Study of Education, 5 units (Course 130)
   - *b*) Methods and Management of Instruction, 2 units (Course 201)
   - *c*) Practice Teaching, 6 units (Course 202)
   - *d*) Principles of Elementary Education, 3 units (Course 193)
4. At least a year of residence work at one of the state teachers colleges where the proper normal method courses and training may be secured.*

* The School of Education does not prepare candidates for the elementary credential, and such training must be secured in a state teachers college before coming to this University, or by taking a leave for one year and attending such an institution. Credit for such work may be obtained if arranged for in advance.

5. A course in the Constitution of the United States (History 175, or an acceptable substitute taken in a teacher-training institution in the state of California). This requirement may be covered by taking the examination given by the county superintendents throughout the state.

II. THE JUNIOR HIGH SCHOOL CREDENTIAL

(Valid for teaching in any junior high school.)

An applicant for a Junior High School Credential must present the following:

1. A Bachelor's degree from this University.
2. A certificate that the applicant is physically and mentally fit to teach.
3. Completion of 27 quarter units of work in Education, including:
   - *a*) Introduction to the Study of Education, 4 units (Course 130)
   - *b*) Methods and Management of Instruction, 2 units (Course 201)
   - *c*) Practice Teaching, 6 units (Course 202)
   - *d*) Principles of Secondary Education, 3 units (Course 195)
   - *e*) Teachers' Courses in both the major and minor subjects, if given in the University
   - *f*) Other elective courses to complete the required number of units

It is highly desirable that the requirements in Education for the Elementary Credential be completed by every candidate for the Junior High School Credential, that the credential may read "including Elementary," so that the candidate may teach in the elementary grades as well.

4. Completion of the required work in at least one Teaching-Major and one Teaching-Minor, in subjects taught in high schools. If the Major subject is in a field not commonly accepted for high school graduation, such as Philosophy, Education, Psychology, etc., two Minors will be required.
5. A course in the Constitution of the United States (History 175, 3 units, or an acceptable substitute taken in a teacher-training institution in the state of California). This requirement may be covered by taking the examination given by the county superintendents throughout the state.

III. THE SECONDARY SCHOOL CREDENTIAL

(Valid for teaching in any elementary, junior, and senior high school in the state; and, if the holder has secured the A.M., Ph.D., or Ed.D. degrees, in the junior college.)

In all cases the candidate must hold a Bachelor's degree from some institution requiring eight years of high school and college work for such degree; must satisfactorily complete the required work in at least one Teaching-Major and one Teaching-Minor, with the exception that where the Major is in Education or Psychology, or in any field not commonly accepted for high school graduation, two Minors will be required; and in addition must complete in this University a full year of graduate study.

The School of Education has ruled that all work done in graduate standing must be of C grade or above, to be counted for the credential.

An applicant for a Secondary Credential must present the following:

1. A certificate that the applicant is physically and mentally fit to teach.
2. A course in the Constitution of the United States (History 175, or acceptable substitute taken in a teacher-training institution in the state of California). This requirement may be covered by taking the examination given by the county superintendents throughout the state.

3. A Bachelor's degree from some institution requiring eight years of high school and college work to secure the degree.
4. One full year of graduate work of not less than 39 quarter units of Upper Division or graduate courses, in an institution, or institutions, approved for graduate work by the State Department of Education, not including extension and correspondence work. This graduate work must include at least a total of nine quarter units in the candidate's teaching subjects, and at least nine quarter units in Education courses. The School of Education of Stanford University expects all candidates to put in at least three quarters of work in the University in order to secure the credential.
5. A minimum of 27 quarter units in Education courses, including:
   a) Introduction to the Study of Education, 4 units (Course 130)
   b) Principles of Secondary Education, 3 units (Course 195)
   c) Methods and Management, 2 units (Course 201)
   d) Practice Teaching, 6 units (Course 202). This may be waived in the case of candidates who have had one or more years of successful teaching experience
   e) Teachers' Courses in both Major and Minor subjects, if given in the University
6. Completion of the required work in at least one Teaching-Major and one Teaching-Minor, in subjects taught in high schools. If the Major subject is in a field not commonly accepted for high school graduation, such as Philosophy, Education, Psychology, etc., two Minors will be required.

Candidates who have taught or been engaged in teaching or school supervision in this or any other state, and who present credentials showing that they have done so for at least nine months with reasonable success, may be excused from 6 of the 27 units of Education represented by Practice Teaching (Education 202). All students desiring such exemption must make application on Form B, to be obtained at the office of the Secretary of the School of Education, Room 52.

IV. THE JUNIOR COLLEGE CREDENTIAL

(Valid for teaching in the two years of the junior college.)

An applicant for the Junior College Credential must present the following:

1. A certificate that the applicant is physically and mentally fit to teach.
2. A course in the Constitution of the United States (History 175, or acceptable substitute taken in a teacher-training institution of the state of California). This requirement may be covered by taking the examination given by the county superintendents throughout the state.
3. A Master's or Doctor's degree granted by the recommending institution or other institution approved by the State Board of Education. One year of graduate work must have been done in the recommending institution.
4. Two Teaching-Majors, or one Major and two Minors.
5. At least 15 quarter units of work in Education including:
   a) Principles of Junior College Education, 3 units (Course 285). In certain cases, Principles of Secondary Education may be substituted
   b) Methods and Management, 2 units (Course 201)
   c) Practice Teaching, 6 units (Course 202). This may be waived in the case of candidates who have had one or more years of successful teaching experience

V. SPECIAL SECONDARY CREDENTIALS

(Valid for teaching the subject, or subjects, named upon the credential in the schools of California.)

Special Secondary Credentials are granted in the fields of Art; Commerce; Health and Development; Home-making; Industrial Education; Library Craft; Music, Band, Orchestra, or Chorus; Physical Education; Speech Arts; Vocational Education, Trade and Industrial Education, Agricultural Education.

The School of Education at Stanford University at present can prepare candidates only for the Special Credentials in Art, in Physical Education for Men, and in Speech Arts. Candidates interested in the other fields must secure proper preparation from some other accredited teacher-training institution.

[Applicants for Special Credentials in the fields listed above may secure additional information from the Secretary of the School of Education as to requirements in each field, other than Art, Physical Education for Men, or Speech Arts, described below.]

An applicant for a special Credential must present the following:

1. A certificate that the candidate is physically and mentally fit to teach.
2. Completion of a four-year college course with a Bachelor's degree, including a minimum of 24 units of academic work, 36 to 75 units of training in the field listed upon the credential, and 22½ units in Education courses.

(A) Special Secondary Credential in Art

An applicant for a Secondary Credential in Art must present the following:

1. A certificate that the candidate is physically and mentally fit to teach.
2. A Bachelor's degree from a teacher-training institution approved by the California State Department of Education for training art teachers.
3. A minimum of 24 quarter units of academic work.
4. A minimum of 22½ quarter units of professional work in Education, including:
   - *a*) Principles of Secondary Education, 3 units (Course 195)
   - *b*) Practice Teaching, 6 units (Course 202)
   - *c*) Methods and Management, 2 units (Course 201)
   - *d*) Teacher's Course in Art, 3 units (Course 206)
   - *e*) Introduction to the Study of Education, 4 units (Course 130)
5. A minimum of 75 quarter units of work in art, distributed approximately as follows:
   - *a*) History, theory, and appreciation of art.....15 units
     - Graphic Art 6. Lectures on Renaissance and Modern Painters
     - *Graphic Art 5. The Art of House Design
     - *Graphic Art 116. Interior Decoration
   - *b*) Representation .....15 units
     - Graphic Art 1. Still-life and Quad Sketching
     - Graphic Art 2. Free-hand Construction Drawing
     - Graphic Art 4. Perspective
     - Graphic Art 110. Illustration

* Courses both in art theory and in design.

c) Design .....15 units
Graphic Art 3. Design in Form and Color
Graphic Art 5. The Art of House Design
Graphic Art 116. Interior Decoration

d) Art Crafts ..... 6 units
Graphic Art 109. Handicraft: Metal Work
Graphic Art 112. Textiles

e) Electives, in above, or in special fields of art, such as House Design and Civic Art, Posters and Lettering, and Costume .....24 units
Total .....75 units

[Note.—Art Supervisors must hold both the art credential and supervision credential.]

(B) Special Secondary Credential in Physical Education

Physical Education for Men.—An applicant for a Secondary Credential in Physical Education for Men must present the following:

1. A certificate that he is physically and mentally fit to teach.
2. A Bachelor's degree from a teacher-training institution approved by the California State Department of Education for training teachers of Physical Education.
3. A minimum of 24 quarter units of academic work.
4. A minimum of 22½ quarter units of professional work in Education, including:
   a) Principles of Secondary Education, 3 units (Course 195)
   b) Practice Teaching, 6 units (Course 202)
   c) Methods and Management, 2 units (Course 201)
   d) Methods courses in Physical Education (if given)
   e) Introduction to the Study of Education, 4 units (Course 130)
5. A minimum of 23 quarter units selected from at least four of the following:
   a) Biology (e.g., General Biology 1 and 2; Biology 150, Genetics; 160, Protoplasm; 163, Ecology: Environmental Relations.)
   b) Anatomy (Anatomy 103, Dissection of the Human Body; Zoölogy 2, Comparative Anatomy of Vertebrates; Zoölogy 108, Mammalian Anatomy.)
   c) Physiology (Physiology 101, Elementary; 102, Elementary; 103, Principles of Physiology; 104, Physiology of Maintenance; 105, Physiology of External Adjustment.)
   d) Hygiene (Physical Education and Hygiene, Courses 150, 151, 152, 153, and 154.)
   e) Sociology (Economics 2, Elementary Sociology; 112, Social Processes; 113, Social Evolution, Culture, and Progress; 114, Social Problems.)
6. A minimum of 36 quarter units selected from at least six of the following:
   a) History and Principles of Physical Education (Physical Education and Hygiene, Course 155)
   b) Technique of Teaching Activities (Physical Education and Hygiene, Courses 30, 70, 71, 72, 73, 130, 170, 171, 172, 173)
   c) Administration of Physical Education (Physical Education and Hygiene, Courses 160, 161)

d) Kinesiology (Applied Anatomy)
e) Applied Physiology (Physiology of Exercise)
f) Activities in Physical Education (Physical Education and Hygiene, Courses 1, 10–23, 40–45, 101, 110–123, 140–145)
g) Community Recreation
h) Individual program adaptations (Corrective Physical Education)
i) Physical Education Tests and Measurements
j) Health Education
k) Growth and Development of the Child (Education 190)

[NOTE.—At least nine quarter units in activity must be chosen. An official record of the required work in Physical Education activities may count as part of the activity credit evaluated on the state's definition of a semester hour.]

(C) SPECIAL SECONDARY CREDENTIAL IN SPEECH ARTS

An applicant for a Secondary Credential in Speech Arts must present the following:

1. A certificate that he is physically and mentally fit to teach.
2. A Bachelor's degree from a teacher-training institution approved by the California State Department of Education for training teachers of Speech Arts.
3. A minimum of 24 quarter units of academic work, exclusive of courses in Education and Public Speaking.
4. A minimum of 22½ quarter units of professional work in Education, including:
   a) Principles of Secondary Education, 3 units (Course 195)
   b) Practice Teaching, 6 units (Course 202)
   c) Methods and Management, 2 units (Course 201)
   d) Methods course in Public Speaking, 2 units (Course 217)
   e) Introduction to the Study of Education, 4 units (Course 130)
5. A minimum of 60 quarter units of work in English and Public Speaking, distributed approximately as follows:
   a) Composition, 6 units
   b) Vocal Expression and Voice Training, 12 units
   c) Dramatics, 10 units
   d) Speech Making, Argumentation, and Debating, 14 units
   e) English Literature, 18 units

VI. THE SCHOOL ADMINISTRATION CREDENTIAL

The School Administration Credential will be granted to the holders of a valid California Teacher's Certificate, or a California Life Diploma, of elementary, junior high, or secondary grade, who have had at least 17 months of successful experience in teaching, and who, *in addition* to all requirements for a regular teacher's certificate, have completed 22½ quarter units of additional work in Education, as given in the specific requirements listed below, and a minimum of one full year of work at Stanford University.

The School Administration Certificate authorizes the holder to administer public education and to engage in such supervision as may be properly included in the duties of a superintendent, deputy superintendent, assistant superintendent, principal, general supervisor, or head of a department offering

instruction in non-special subjects, such as English, Mathematics, Social Sciences, etc. Superintendents, deputy superintendents, assistant superintendents, principals of schools of more than five teachers (one of whom acts as principal), and vice-principals devoting full time to administrative duties will be required to hold the School Administration Certificate. The grade of the administration certificate is determined by the grade of teacher's certificate held, and since January 1, 1925, has been indicated on the credential. The grade of such credential may be raised without fee when the holder obtains a higher grade of general teacher's certificate.

Application for raising the grade of a School Administration Credential must be made to the State Commission on Credentials, accompanied by the administration credential and the teacher's certificate of higher grade.

The following courses have been prescribed by the State Board of Education as the ones that must be taken to meet the requirements for this credential. After the description of each course as prescribed, the course offered by this University that will satisfy the requirement is indicated.

1. At least 15 units to be selected from not less than four of the following courses (School Administration and Growth and Development of the Child required):
   - *a*) A course in the History of Education in the United States, which will present the problems of present-day education in the light of their historical development. (Course 180, 3 units.)
   - *b*) A course in Educational Tests and Measurements, which will show their use and give some training interpreting the results obtained. (Course 186E or S, 4 units.)
   - *c*) A course in School Administration, dealing with the broad fundamental principles underlying public school administration. (Course 250, 251, or 258, 4 units.)
   - *d*) A course in the Growth and Development of the Child. (Course 190, 3 units.)
   - *e*) A course in the Philosophy of Education. (Course 133 or 175, 4 or 5 units.)

2. At least 7½ additional quarter units, to be selected from the following courses:
   - *a*) Work of an Elementary-School Principal. (Course 254, 4 units.)
   - *b*) Administration of a High School. (Course 230, 3 units.)
   - *c*) The Organization and Supervision of Elementary Education. (Course 256 or 262, 4 units.)
   - *d*) The Supervision of Instruction. (Course 223, 1 unit; 256, 4 units.)
   - *e*) Statistical Methods. (Course 185, 4 units.)
   - *f*) School Surveys. (Course 265, 4 units.)
   - *g*) Rural Education. (Course 174, 3 units.)
   - *h*) The Elementary School Curriculum. (Course 229 or 260, 3 units.)
   - *i*) The High School Curriculum. (Course 231, 5 units.)
   - *j*) State and County School Administration. (Course 250, 4 or 5 units.)
   - *k*) City School Administration. (Course 251, 4 units; 258, 4 units.)
   - *l*) School House Hygiene and Construction. (Course 269, 4 units.)
   - *m*) Methods in Mental Diagnosis. (Course 188, 5 units; 189, 4 units; 170, 3 units; 245, 4 units.)
   - *n*) The Organization or Administration of Vocational Education. (Course 234, 3 or 5 units.)

Under the rules of the State Board of Education, equivalents for any of the courses above, taken elsewhere, can be accepted only when they were completed in "a collegiate institution of standard grade."

[NOTE.—Persons now serving as administrators in schools of less than five teachers, or as supervisors giving less than half time to supervision will be permitted to substitute not less than six units of further work in administration and supervision subjects in lieu of actual experience for each long term renewal; with the understanding that as long as these administrators and supervisors serve in the same school system and are unable to obtain the experience required by law for life diplomas, the credentials may be renewed from time to time for five-year periods, regardless of changed conditions for new credentials.]

VII. SCHOOL SUPERVISION CREDENTIAL

The School Supervision Certificate authorizes the holder to engage in school supervision, in accordance with the class of certificate held, viz.:

Class A. General Supervision, authorizing the supervision of all instruction within the grade of the Certificate.

Class B. Special Supervision, authorizing supervision in special field, such as music, art, physical education, etc.

Class C. Departmental Supervision, authorizing the supervision of departmental instruction in a junior college, high school, or junior high school.

Class D. Supervision of Attendance and Child Welfare, authorizing the holder to supervise attendance, take care of all attendance problems, serve as a co-ordinator between the school and home, and to adjust and administer social welfare.

Persons devoting at least half time to supervision will be required to hold the School Supervision Certificate. The grade of certificate is determined by the grade of teacher's certificate held in the subject or subjects to be supervised, and since January 1, 1925, has been indicated on the State Credential.

This credential will be granted to the holder of a valid California Teacher's Certificate, or a California Life Diploma, of any regular grade or special type, who has had at least 17 months of successful experience in teaching including the subjects he wishes to supervise; and who, *in addition* to all requirements for a regular or Special Teacher's Certificate, has completed school supervision subjects in accordance with the class specified, and has spent at least one year in residence at Stanford University.

The requirements for each class of supervision credential are as follows:

CLASS A—GENERAL SUPERVISION

a) 15 quarter units selected from not less than four of the following courses (School Organization and Supervision, and Growth and Development of the Child required):

1. School Organization and Supervision. (Course 250, 251, or 256, 4 units.)
2. Growth and Development of the Child. (Course 190, 3 units.)
3. Philosophy of Education. (Course 133 or 175, 5 units.)
4. History of Education in the United States. (Course 180, 3 units.)
5. Educational Tests and Measurements. (Course 186E or S, 4 units.)
6. The Curriculum. (Course 229, 3 units; 231, 3 or 5 units; 260, 3 units.)

b) 7½ quarter units selected from the following group:

1. Rural Education. (Course 174, 3 units.)
2. Educational Sociology or Social Aspects of Education. (Course 175, 4 or 5 units.)
3. The Relation of Community Agencies to Public Education. (Course 300, 3 to 5 units.)
4. Problems of Supervision. (Course 256, 4 units; 262, 4 units.)
5. Modern Practice and Experiment in Education. (Course 229, 3 units.)
6. Methods in Mental Diagnosis. (Course 188, 5 units; 189, 4 units; 245, 4 units; 170, 3 units.)
7. Vocational Guidance. (Course 234, 3 or 5 units.)

[NOTE.—The candidate must also verify at least 9 quarter units in each of two subjects selected from the following: music, art, physical education, manual arts, commerce, homemaking subjects, and agriculture. These courses need not be in addition to courses presented for the teacher's certificate.]

CLASS B—SPECIAL SUPERVISION

a) 6 quarter units of work selected from at least two of the following courses (Growth and Development of the Child required):

1. Growth and Development of the Child. (Course 190, 3 units.)
2. Philosophy of Education. (Course 133 or 175, 5 units.)
3. History of Education in the United States. (Course 180, 3 units.)
4. Social Value of the Special Field in which Supervision is to be done.

b) 9 quarter units of work selected from the following group (Organization, Objectives, and Supervision of Instruction in the Special Subject required):

1. Organization, Objectives, and Supervision of Instruction in Special Subject. (Special Teacher's Courses.)
2. Tests and Measurements in the Special Subject. (Course 186E or S, 4 units.)
3. Problems of Supervision. (Course 262, 4 units.)
4. Vocational Guidance. (Course 234, 3 or 5 units.)

CLASS C—DEPARTMENTAL SUPERVISION

a) 7½ quarter units of work, including the following courses (Problems in the Organization and Supervision of a Department and Educational Measurements required):

1. Problems in the Organization and Supervision of a Department. (Course 254, 4 units.)
2. Organization and Supervision of Instruction. (Course 256 or 262, 4 units.)
3. Educational Measurements, including Tests in Special Field, if available. (Course 186E or S, 4 units.)

[NOTE.—Holders of "C" Departmental Supervision Credentials may be granted the School Administration Credential upon completion of 15 quarter units of work in school administration subjects as outlined under group (1) of requirements for the Administration Credential.]

Class D—Credential in Supervision of Attendance and Child Welfare

1. A valid California Certificate, Credential, or Life Diploma of elementary or secondary grade.
2. Two years of thoroughly satisfactory school experience.
3. A minimum of 22½ quarter units in Education courses relating to supervision of attendance and child welfare.

VIII. EDUCATIONAL RESEARCH CREDENTIALS

(I) Short-Term Research Director's Credential

[Valid for one year and may be renewed twice, on evidence as to successful practice or the completion of further requirements leading to a long-term credential.]

An applicant for the short-term Research Director's Credential must present the following:

1. A certificate that he is physically and mentally fit to engage in school work.
2. A Master's or a Doctor's degree in Education or Psychology, or related lines of work, and at least one full year of residence at Stanford University.
3. Evidence as to having complied with one of the following requirements:
   - *a*) Completion of all requirements for the general administration or general supervision credential.
   - *b*) Two years of successful experience as a full-time director, associate director, or assistant director of a bureau or department of educational research.
   - *c*) Satisfactory completion of a specific course or courses in an accredited teacher-training institution, in each of the following fields:
     - (1) Educational Statistics (Courses 185, 240, 241)
     - (2) Educational Tests and Measurements (Courses 186, 244)
     - (3) Mental Tests and Testing (Courses 188, 189, 245, 314)
   - *d*) Two years of full-time successful experience under capable direction in the fields listed under professional growth, below.

(II) Long-Term Research Director's Credential

[Valid for five years, and may be renewed for five-year periods upon evidence of successful experience as director, associate director, or assistant director of a bureau or department of educational research for at least two full school years, or by professional growth as shown by continued study or by original contributions to the scientific literature of educational research.]

An applicant for a long-term Research Director's Credential must present the following:

1. A certificate that the applicant is physically and mentally fit to engage in school work.
2. A Master's or Doctor's degree in Education or Psychology, or in related lines of work, with a minimum of one and one-half years of full-time postgraduate work.
3. Completion of a specific course or courses in each of the following fields:
   - *a*) Educational Statistics (Courses 185, 240, 241)
   - *b*) Educational Tests and Measurements (Courses 186, 244)
   - *c*) Mental Tests and Testing (Courses 188, 189, 245, 314)

d) 6 quarter units of advanced work in each of three of the following fields:
(1) School Administration and Finance
(2) School Supervision
(3) Curriculum
(4) Individual Research

IX. PRELIMINARY CREDENTIALS FOR PRACTICE TEACHING

Recommendations for Preliminary Special or Preliminary Regular Elementary, Junior High, or High School Teachers' Certificates, authorizing the holder to do cadet teaching, without salary, in any school, are also granted to those enrolled for Practice in Teaching, Education 202. Application for these is made through the Director of Practice Teaching, Professor Benjamin.

APPLICATION FOR A TEACHING CREDENTIAL

When any student has spent the requisite time in study at this University, and has completed the prescribed program of studies in Majors and Minors for the High School Teacher's Recommendation; or the special course of study required by the School of Education and by the regulations of the state for an Elementary School, a Junior High School, a Junior College, or for the Administration, Supervision, or other Special Type of Teacher's Recommendation, such student must make application early in the last quarter of residence at the University for a credential of the type of certificate desired, and leave such application with the Secretary of the School of Education, in Room 52. Students who plan to complete requirements during the summer quarter must make application in May, that there may be no delay in receiving credentials before the opening of schools in the fall.

The credential desired is granted only after the application has been approved by the Committee on Credentials and Degrees of the School of Education, and is then forwarded for signature, to the Commission on Credentials of the State Board of Education, at Sacramento. Upon presentation of this credential to any County Superintendent of Schools in California a certificate will be issued. This procedure is made necessary by a requirement of the Constitution of California that the actual teacher's certificate can be granted only by the counties.

Application blanks for all types of credentials may be obtained from the Secretary of the School of Education, and must be returned to her when correctly filled out and signed by the recommending Major and Minor departments.

COURSES OF INSTRUCTION

1929–30

[*The asterisk (*) indicates that the course is repeated for the quarter named; otherwise courses announced for two quarters or more may be interpreted as continuing from one quarter to the next. Courses numbered from 1 to 99 inclusive are primarily for Lower Division undergraduates; from 100 to 199 inclusive, for Upper Division undergraduates; from 200 to 299 inclusive, for graduate students. The enrollment in the various courses is printed in italics at the end of the descriptive matter.*]

SCHOOL OF BIOLOGICAL SCIENCES

Carl Lucas Alsberg, Ernest Gale Martin (*Chairman*), Walter Richard Miles, Edwin William Schultz, Gilbert Morgan Smith, James Perrin Smith, John Otterbein Snyder, Clara S. Stoltenberg, Robert Eckles Swain, Charles Vincent Taylor, *Executive Committee.*

The School of Biological Sciences includes the following departments or subjects within departments: Anatomy, Bacteriology and Experimental Pathology, Biochemistry, Botany, Experimental Psychology, Food Research, Hopkins Marine Station, Paleontology, Physiology, and Zoölogy. (Courses in Biochemistry, Experimental Psychology, Food Research, and Paleontology are listed under separate headings.) Programs are offered leading to the degrees of Bachelor of Arts, Master of Arts, and Doctor of Philosophy in the School of Biological Sciences. These are supplementary to the programs offered by the various individual departments of the School.

Graduation.—The requirements for the degree of Bachelor of Arts in the School of Biological Sciences are as follows: Sixty units of work in the biological sciences, so chosen that there shall be fifteen units from each of three departments of the School. Provision is made for modifying the fifteen-unit departmental requirement to the effect that upon completion of ten units in any department the student may substitute work in another department upon securing the consent of both departments concerned and of his adviser in the School. The general program must be properly approved. Students are urged to include a summer or other quarter of work at the Hopkins Marine Station. One or more college courses in mathematics will be found helpful.

Advanced Degrees.—Candidates for the degree of Master of Arts in the School of Biological Sciences must fulfill the conditions outlined on pages 160–161, including the completion of a program of advanced study in biological science which has been approved by the Executive. Com-

mittee of the School of Biological Sciences at the time of registration for the degree.

Candidates for the degree of Doctor of Philosophy in the School of Biological Sciences must fulfill the conditions outlined on pages 163–165. In addition to this it is understood that the candidate's preparation shall include a basic knowledge of the classification, structure, and function of both plants and animals. The candidate's program of graduate study must be approved by the Executive Committee of the School of Biological Sciences prior to its submission to the Graduate Study Committee.

GENERAL BIOLOGY

The courses in General Biology (Biology 1 and 2) are under an Administrative Committee composed of Professors Burlingame (Executive Director), Heath, E. G. Martin, and Peirce.

These courses attempt to present to beginners by means of lectures, illustrations, demonstrations, and laboratory exercises the fundamentals of Biology in its broadest sense. They include a study of: (1) Protoplasm, the common living substance of all plants and animals; (2) The organization of cells and their combination into multicellular organisms; (3) The rôle of green plants in the manufacture of foods; (4) The transformation of foods into the living substance of plants and animals; (5) The liberation and utilization of the chemical energy of foods; (6) The sensitivity of protoplasm and its rôle in correlating the internal processes of the organism on the one hand and relating and adjusting it to its environment on the other; (7) Disease and death of organisms; (8) The enrichment of the soil through the decomposition of organic remains and nitrogen fixation; (9) The perpetuation of the species through reproduction; (10) The laws and mechanism of heredity; (11) Evolution and adaptation of organisms; (12) The factors controlling the ecological and geographical distribution of organisms; and (13) Man's place in nature.

There are no prerequisites to the courses in General Biology, and both courses are required of all Lower Division students not presenting a high-school equivalent, before admission to the Upper Division. (See page 158.)

1. Biology.—Lectures and laboratory work.
5 units, autumn and *winter quarters
Lec. (Burlingame, Doane, Martin, Peirce) (autumn) MW 8; (winter) TTh 8
Lab. (Furgason, Wolf, and Assistants) MW 1:05–4:05 or TTh 1:05–4:05
Autumn, 190; winter, 169

2. Biology.—Lectures and laboratory work.
4 units, winter and *spring quarters
Lec. (Burlingame, Martin) MW 8
Lab. (Furgason, Wolf, and Assistants) (winter) TTh 8–10 or Th 10–11 and F 1:05–4:05; (spring) MW 1:05–3:05, or TTh 1:05–3:05
Winter, 97; spring, 68

ANATOMY

Arthur William Meyer, †Charles Haskell Danforth, Frank Mace McFarland, Clara S. Stoltenberg, Professors
John Eldridge Markee, Homer Newton Violette, Instructors
Herlwyn R. Green, Acting Instructor
Lot Duncan Howard, Donald George Marquis, Assistants in Instruction

The facilities of the Department of Anatomy are always at the disposal of properly qualified students or physicians who desire to undertake the investigation of some problem in gross or microscopic anatomy, embryology, physical anthropology, or mammalian genetics. Any earnest student desiring to investigate a problem in gross or microscopic anatomy or experimental biology need not be deterred by a fear of not being able to obtain the necessary equipment or material, but it is suggested that advanced students or physicians desiring to undertake special work communicate directly with those in charge of the contemplated work. Since the properly qualified graduate student in anatomy should occupy himself mainly with investigation, the chief emphasis is placed upon this rather than upon the pursuit of advanced courses. For the latter the student is referred also to the announcement of courses in the departments of Bacteriology, Biology, Physiology, Zoölogy, and the Hopkins Marine Station.

Advanced Degrees.—Students desiring to be admitted to candidacy for the degree of Master of Arts in Anatomy must have satisfactorily completed one year's work in histology and microscopic anatomy, at least one quarter in embryology, and possess a knowledge of laboratory technique adequate for the investigation to be undertaken, in addition to fulfilling the University requirements. For admission to candidacy for the degree of Doctor of Philosophy a reading knowledge of both French and German is further required.

Library.—All the important periodicals on human and comparative anatomy, anthropology, and experimental biology and technique are in the departmental or University Library, and those on medicine in the Lane Medical Library, which, although located in San Francisco, is an integral part of the University Library, and at the service of students.

Fees.—A deposit of $2.50 for microscopes and of $10 to cover damage to or loss of bones is required of all students registering in gross and in microscopic anatomy. This sum, less charges for damage or loss, is refunded at the close of the academic year, except in the case of students discontinuing work who may obtain the refund at the end of the quarter. Students who are not registered in medicine are charged a laboratory fee of $15 per quarter for Course 103, and $5 for each of the other laboratory courses. A fee of $5 per course is required also of medical students taking optional laboratory courses.

REQUIRED COURSES

101. General Histology and Microscopic Anatomy.—A course dealing with the elementary structure and vital activities of the animal cell, the histology and development of the tissues, and their combination into the

† Absent on leave, 1929–30.

organs of the vertebrates, with especial reference to the Mammalia. Elementary histological technique is taught during the course. Open to medical students, and to others properly prepared, so far as laboratory space permits.
4 units, autumn and winter quarters (McFarland) Lec. by arrangement
Lab. (autumn) WThF 1:20–4:05; (winter) MT 9–12, W 1:20–4:05
Autumn, 54; winter, 53

103. Dissection of the Human Body.
20 units (Meyer, Markee, Green, Violette) Lab. (autumn) MW 8–12, TThF 9–12, 9 units; (winter) WThFS 9–12, 5 units; (spring) MTWThF 8–11, 6 units
Autumn, 52; winter, 50; spring, 48

206. Neurology.—A study of the structure of the central nervous system of man by means of dissections and prepared slides, supplemented by dissections of the central nervous system of other mammals. During the winter quarter the course will be given for non-medical students only.
5 units, autumn and *spring quarters (Stoltenberg, Markee)
(autumn) Lec. W 8; Lab. MF 9–12, W 8–12; (winter) By arrangement
Autumn, 50; spring, 51

OPTIONAL AND ADVANCED COURSES

106. Human Heredity.—A study of the facts and problems of heredity in relation to the individual and the population as a whole. Demonstrative experiments in mammalian genetics. Elective for medical students, others by permission.
2 units, autumn quarter (Danforth) [Not given in 1929–30]

107. Cytology.—The course deals with the structure and functions of the animal cell with special reference to the reproductive processes. Lectures, laboratory work, and assigned reading. Open to those who have had courses in Histology, Embryology, and Microscopic Technique.
3 to 5 units, spring quarter (McFarland) [Not given in 1929–30]

108. Special Courses.—Advanced courses in Histology, Histogenesis, Microscopic Anatomy, Cytology, or Microscopic Technique will be planned to suit the needs of individual students. Open to those who have had courses in Histology and Embryology.
2 to 5 units (McFarland) [Not given in 1929–30]

110. Anatomy of the Sense Organs.—A study of the sense organs by means of dissections and prepared slides, supplemented by models and prepared dissections.
2 to 4 units, winter quarter (Stoltenberg) By arrangement
Winter, 7

111. Physical Anthropology. — Practical instruction in anthropometric methods, and lectures on anatomical variation and heredity in man.
2 units (Danforth) [Not given in 1929–30]

112. Mammalian and Human Embryology.—A course designed especially for pre-medical students. It includes a study of early development in the mouse with special reference to human embryology and the commoner human developmental anomalies.
5 units, spring quarter (Meyer, Markee, Howard)
TTh 1:05–2:05, MWF 1:05–4:05
Spring, 66

113. Histology and Microscopic Anatomy.—An elementary course designed to present the fundamental facts of these subjects with some training in their interpretation. Not open to pre-medical or to medical students.
4 units, spring quarter (McFarland) [Not given in 1929–30]

120. Human Anatomy.—A brief survey of the gross anatomy of the human body, with the aid of human anatomical preparations and dissections, and

models, and other vertebrate material, accompanied by discussions and laboratory study. This course is designed especially for students of Hygiene and Physical Education, and others desiring an elementary knowledge of the architecture of the human body. The main emphasis is placed on body form and asymmetries, the nature of the mature and immature skeletons, the topography of the chief viscera, the gross structure of joints, and the relations and action of muscles.

5 units, winter and *summer quarters (Green, Howard) Lab. MWF 9–12; Discussions TTh 9–10

Winter, 4; summer, 5

209. Topographical Anatomy.—The work consists of the laboratory study of frozen sections of fetal, infantile, and adult cadavers made in various planes, and of dissected and specially injected preparations, supplemented by models and atlases.

2 to 5 units (Meyer) By arrangement

Autumn, 1; summer, 1

213. Investigation and Special Work.—This work must be arranged for individually with the professor or professors concerned, but may be started at any time.

Autumn, 5; winter, 4; spring, 4 (Department Staff)

214. Conferences in Anatomy.—Special topics are assigned for reading and discussion two to three hours weekly. Prerequisites: Courses 101 and 103.

2 to 3 units (Meyer) By arrangement

BACTERIOLOGY AND EXPERIMENTAL PATHOLOGY

Edwin William Schultz, Wilfred Hamilton Manwaring, Professors
Earle Thomas Dewey, Assistant Professor
Charles Egolf Clifton, Instructor
Margaret Reed Lewis, Lecturer (Summer Quarter)

[With the co-operation of Dr. Beard of the Department of Civil Engineering]

The Department of Bacteriology and Experimental Pathology enjoys facilities for both instruction and research work in general and pathogenic bacteriology, immunology, and the filtrable viruses. Properly prepared undergraduates may launch upon a full program of study in the department during their fourth year, and in one year of intensive work may lay the essential foundation for research work in any one of the special fields mentioned. While the department is primarily interested in graduate students desiring to prepare themselves for research careers in bacteriology, every attention is given to undergraduate students who may desire either to spend an additional year in their preparation for the medical school, or to prepare themselves for careers in diagnostic laboratories in hospitals, public health work, etc. Pre-medical students planning to take the Bachelor's degree in bacteriology before entering on their medical studies should present at the *end of their third year* essentially the same credentials as are required for admission to the School of Medicine. The only difference in this case is that the student spends his fourth year in the department instead of in the School of Medicine.

Recommended Curriculum for Degree of Bachelor of Arts.—Students intending to major in the department should include the following courses

in their Lower Division program: Chemistry 1, 2, 3 (or 10, 11, 12), 20; Zoölogy 2; French and German. The normal program for the third and fourth years is given below:

THIRD YEAR

Autumn		Winter		Spring	
Subject	Units	Subject	Units	Subject	Units
Chem. 121, Organic Lectures	3	Chem. 123, Organic Lectures	3	Chem. 125, Organic Lectures	3
*Phys. 1, Mechanics and Heat	5	*Phys. 2, Electricity	4	Bact. 100, General	5
Zoöl. 108, Mammalian Anatomy	5	*Phys. 3, Lenses	1	Anat. 113, Histology	4
Electives	2	Electives	7	*Phys. 100, Modern	3
Total	15	Total	15	Total	15

FOURTH YEAR

Bact. 201, Medical	9	Bact. 202, Filtrable Viruses	7	Bact. 102, Sanitary Biology	3
Bact. 203, Principles of Immunity	2	Bact. 204, Serology	3	Bact. 207, Advanced Bacteriology	3
Chem. 141, Biochemistry Lectures	2	Bact. 209, Journal Club	1	Electives	9
Electives	2	Chem. 143, Biochemistry Lectures	2		
		Chem. 144, Biochemistry Laboratory	2		
Total	15	Total	15	Total	15

Advanced Degrees.—Applicants for the degree of Master of Arts in Bacteriology and Experimental Pathology will be expected to complete, in addition to the requirements for the Bachelor's degree, the equivalent of forty-five units of work in the University, of which approximately two-thirds must be in the department. The department work will include a thesis based on laboratory work, and Courses 201, 202, 203, 204, and 207, if the equivalent has not been included in the undergraduate work.

Candidates for the degree of Doctor of Philosophy in Bacteriology and Experimental Pathology, after the completion of the equivalent of the requirements for the degree of Master of Arts, will follow such courses as are approved by the department, subject to general University regulations.

Fees.—Courses 201, 202, and 204, $20 each; Courses 100 and 101, $10 each; Courses 102 and 207, $5 each; Course 210, $2 per unit. Microscope rental, $5 per quarter.

COURSES OF INSTRUCTION

1. Hygiene of Infectious Diseases. — Non-technical lectures in bacteriology, with special reference to the application of bacteriological and serological methods to the control and prevention of infectious diseases. The lectures are supplemented with lantern slides and one or two practical demonstrations in the laboratory. Open to all students.

3 units, spring quarter [Not given in 1929–30]

99. Tissue Culture Methods.—Lecture and laboratory exercises on the application of tissue culture methods to the study of filtrable virus problems.

5 units, summer quarter (Lewis) MWF 9–12
Summer, 6

* If not included in the Lower Division program.

100. General Bacteriology.—Lectures and laboratory work covering a variety of non-pathogenic forms, including those related to the fertility of the soil and to the dairy and other industries, as well as pathogenic forms concerned in human, animal, and plant diseases. Prerequisites: General Biology and General Chemistry.
5 units, spring quarter (CLIFTON) Lec. MWF 8; Lab. MWF 9–11
Spring, 20

101. Sanitary Bacteriology.—A course of lectures and laboratory exercises dealing mainly with the bacteriology of food, water, and sewage. Intended primarily for sanitary engineering students, biology majors, and those planning to enter careers as public health workers. Prerequisites: General Biology and General Chemistry.
6 units, winter quarter (BEARD) Lec. MWF 1, Lab. MWF 2–4:30
Winter, 11

102. Sanitary Biology.—Designed especially for sanitary engineers, health officers, physicians, and biochemists. Regular methods of plankton analysis, determination of the significant properties of water in relation to plants and animals, visits to ponds, water supplies, etc. Whipple's *Microscopy of Drinking Water* will be used as a guide. One lecture, one laboratory period, one field trip each week.
3 units, spring quarter (BEARD) Lec. T 9; Lab. ThS 9–12
Spring, 16

201. Medical Bacteriology.—A course devoted chiefly to the pathogenic bacteria, with emphasis on the laboratory procedures employed in the diagnosis of bacterial infections. Prerequisite: Organic Chemistry. Limited to 68 students.
9 units, autumn quarter (SCHULTZ, DEWEY) Lec. MTWThF 1; Lab. MTWThF 2–4
Autumn, 62

202. Filtrable Viruses.—Lectures and demonstrations on the filter-passing agents of certain human, animal, and plant diseases.
2 units, winter and *summer quarters (SCHULTZ) Lec. TTh 9
Winter, 20; summer, 1

203. Principles of Immunity.—A course of lectures on immunity and serological methods. Must be preceded or accompanied by Course 201.
2 units, autumn and *summer quarters (DEWEY, SCHULTZ) TTh 11
Autumn, 23; summer, 1

204. Serology.—A laboratory study of the toxin-antitoxin reaction, bacteriolysis, hemolysis, agglutination, and precipitin reactions; phagocytosis, complement fixation, anaphylaxis, etc. Not given for less than eight students. Must be preceded by Course 203.
3 units, winter and *summer quarters (DEWEY, SCHULTZ) MWF 9–12
Winter, 13; summer, 1

206. Diagnostic Laboratory Methods.
5 units, spring quarter (SCHULTZ) By arrangement
Spring, 1

207. Advanced Bacteriology.—An advanced course in bacteriological procedures, intended primarily for those planning to go into laboratory work as a career.
6 units, winter and *summer quarters (SCHULTZ, BEARD) MTWThF 1–4:30
Winter, 11; summer, 1

208. Journal Club.—A study of current literature in bacteriology, immunology, and the filtrable viruses, with weekly conferences.
1 unit, winter quarter (DEPARTMENT FACULTY) M 4
Winter, 17

209. Research Seminar.—Students present summaries of the progress of their researches and reviews of the literature bearing on their studies. Required of all majors doing research in the department.
1 unit, spring quarter (Department Faculty) M 4
Spring, 14

210. Research.—Qualified students may begin research work at any time in either bacteriology, immunology, or the filtrable viruses. Candidates must present at least the equivalent of Courses 201, 202, 203, and 204, together with a satisfactory scholastic record.
5 to 10 units, any quarter (Schultz, Dewey, Clifton, Beard) By arrangement
Autumn, 12; winter, 14; spring, 20; summer, 4

211. Research in Immunological Theory.—An opportunity for four students to act as research assistants in immunological theory, the problem being approached by physiological and biochemical methods. An independent problem will be assigned by the beginning of the third quarter. Prerequisites for independent work: Chemistry 141, 142, 143, 144; Physiology 104, 105; Bacteriology 201, 203, 204, or equivalents, and a dependable immuno-physiological technique.
5 to 10 units, autumn, winter, and spring quarters (Manwaring)
[Not given in 1929–30]

217. Colloidal Behavior of Bacteria.—A course of lectures and demonstrations in colloid chemistry with particular reference to the colloidal nature and behavior of bacteria.
2 units, spring quarter (Clifton) MW 11
Spring, 8

BIOLOGY

Leonas Lancelot Burlingame, Charles Vincent Taylor, Professors
Waldo H. Furgason, Carl Brandt Wolf, Acting Instructors

100. Microscopical Technique.—Registration is limited to such students as are already engaged in work on a research problem or are preparing to undertake one. Registration only after consultation with the instructor. Syllabus fee, $1 per unit.
3 or more units, autumn quarter (Burlingame) [Not given in 1929–30]

110. Advanced General Biology.—Designed for assistants and prospective graduate students.
4 units, autumn and winter quarters (Burlingame) By arrangement
Autumn, 5; winter, 5

150. Genetics.—Lectures, assigned reading, and conferences on inheritance in plants, animals, and man. Prerequisite: General Biology, or equivalent.
3 units, spring quarter (Burlingame) MWF 10
Spring, 19

152. Problems in Genetics.—This course offers an opportunity to continue advanced work along the lines of Course 150.
Any quarter (Burlingame) By arrangement
Autumn, 1; winter, 1

160. The Biology of Protoplasm.—An account of the fundamental architecture of protoplasm, its elementary physico-chemical and physiological properties and the differentiation and integration of its diverse structures having specific functions. Laboratory work includes microscopic studies of living material, chiefly Protozoa, with the aid of improved micromanipu-

lation methods. For senior and graduate majors in the School of Biology. Limited to eight students. Prerequisite: Chemistry 201.
4 units, winter quarter (TAYLOR) TTh 9 and TTh 1–4
Winter, 5

170. Cytology.—Reading, conferences, and laboratory exercises on the structure of the cell. Especial attention is given to the structure and behavior of the nucleus with particular reference to its function in heredity. Prerequisite: One year of plant or animal morphology.
5 units, winter quarter (BURLINGAME) MTWThF 10–12
Winter, 3

171. Human Heredity.—A review of the facts and problems of heredity in relation to the individual and to the population as a whole.
2 units, autumn quarter (DANFORTH) [Not given in 1929–30]

250. Research in Cytology and Genetics.—For students who wish to undertake original work in genetics or cytology. Prerequisites are an adequate training in biology and such special courses as the nature of the work makes necessary.
Any quarter (BURLINGAME) [Not given in 1929–30]

260. Research: Biology of Protoplasm.
(TAYLOR) By arrangement
Autumn, 2; winter, 3

261. Chemophysical Biology.—Chemophysical methods, analyses, and interpretations in fundamental studies of cyclic, living systems. Planned for those interested in the borderline field of the physical and biological sciences. Lectures, readings, and discussions.
1 unit, autumn, winter, and spring quarters (CLARK, LUCK, TAYLOR) Th 4
Autumn, 10; winter, 7; spring, 11

[Teachers' Course in Biology.—See Education 203.]

Fees.—Fees are charged in the various courses approximately sufficient to cover the cost of the perishable materials and syllabus used, as follows: Courses 100, 152, 170, $1 per unit, each; Course 150, $1; Course 160, $3. The fees for Courses 250 and 260 are charged according to special arrangement with the instructor concerned.

BOTANY

DOUGLAS HOUGHTON CAMPBELL, Professor Emeritus

GEORGE JAMES PEIRCE, LEROY ABRAMS, GILBERT MORGAN SMITH, Professors
HARVEY MONROE HALL, Acting Professor
TRACY ELLIOT HAZEN (Barnard College), Acting Professor (Summer Quarter)
JAMES IRA WILSON MCMURPHY, Associate Professor
IRA LOREN WIGGINS, Assistant Professor
WILLIAM AUSTIN CANNON, WILLIAM FRANKLIN WIGHT, Lecturers on California Botany

[With the co-operation of PROFESSORS BECKING and BURLINGAME of the Division of Biology.]

The Department of Botany aims to provide instruction for two classes of students: (*a*) Students who wish to know something of the structures, life

processes, relationships, and uses of plants, and to gain some familiarity with the methods of scientific work; and (*b*) Professional students who look forward to investigation, teaching, or the technical applications of Botany in Plant Breeding, Forestry, Agriculture, Horticulture, Plant Pathology, Sanitation, and Public Health. Courses 1, 2, and 3, which present the elements of the more important divisions of botanical study, are designed to meet the needs of both groups of students. Courses 110, 111, 112, 113, 114, 120, 130, 140, 141 are open to students who have had Courses 1, 2, and 3, or the equivalent. It is the aim of these courses to give the student, by means of lectures and references to the literature, a general and summary account of the present state of knowledge, and in the laboratory and the field to afford him an opportunity for a personal acquaintance with plants themselves. Students who have had two or more years' work may, after consultation, be registered in Courses 121, 122, 131, 142, 210.

Department Resources.—The resources of the department afford exceptional opportunities in a number of fields. Students will be received in five lines of botanical study, namely, morphology (with PROFESSOR SMITH), cytology and genetics (with PROFESSOR BURLINGAME), physiology (with PROFESSORS PEIRCE and BECKING, the latter at the Hopkins Marine Station), taxonomy and plant geography (with PROFESSORS ABRAMS and WIGGINS), mycology and plant pathology (with PROFESSOR MCMURPHY). The laboratories are equipped with apparatus and appliances for these subjects, and the University Library contains the necessary references. In addition, the collections of PROFESSOR CAMPBELL in various parts of the world, and the richness of the local flora, offer special opportunity for work in the Archegoniatae. The extraordinary climatic conditions, permitting plants to grow throughout the year and allowing the successful cultivation of plants from any other parts of the world, furnish fresh material and the opportunity for physiological and genetical work under natural conditions.

The Arboretum, established by Senator Stanford prior to the opening of the University, covers approximately 200 acres and contains a large variety of conifers as well as many trees and shrubs of other species. In 1916 it was made an integral part of the Department of Botany, and plantings and replacements were begun with a view to bringing together not only a large variety of exotic species, but also a comparatively complete collection of the trees and shrubs native to western North America.

The Experimental Garden and greenhouses, besides the extensive permanent plantings in the Arboretum and elsewhere on the grounds of the University, provide facilities for growing plants under control. Experiments in plant breeding (PROFESSOR BURLINGAME), plant pathology (PROFESSOR MCMURPHY), and physiology (PROFESSOR PEIRCE) are being carried on, and the department will be glad to place these facilities at the disposal of qualified students wishing to do similar work.

Graduation.—Major students in the department will be expected to complete fifty units in Botany, and five units in Zoölogy. The fifty units should include Courses 1, 2, 3, 110, 111, 112, 113, 114, 120, 130, 140, 141, 142. Students should also be able to read French and German.

The Teacher's Recommendation in the University is based on the satisfactory completion of a minimum of two majors, or one major and two minors. A minor in Botany consists of Elementary Botany (Courses 1, 2, 3) and one advanced course, chosen from the following: 110, 111, 112, 113, 114, 120, 121, 130, 140, 141. A major must include the following: Elementary

Botany (1, 2, 3), Morphology of the Fungi (120), General Morphology (110, 111, 112, 113, 114), Advanced Systematic Botany (130), Physiology (140, 141), a total of 39 units.

Research Work.—Properly qualified students desiring to undertake research work should register in Courses 211, 220, 230, 240, after consultation with the instructor concerned.

Fees.—A fee of $1 per unit is charged in the various courses, except in 230, to cover the cost of the perishable materials and syllabus used.

COURSES OF INSTRUCTION

[General Botany (Courses 1 and 2) and Elementary Systematic Botany (Course 3), or their equivalents, are prerequisite to all other courses in Botany.]

1. General Botany.—A study of the vegetative organs of the higher plants with special emphasis on structure and function.
3 units, autumn and *summer quarters (McMurphy and Assistants)
Autumn, 19; summer, 22 MWF 1:05–3:45

2. General Botany.—A continuation of General Botany 1, and comprising an intensive study of representatives from the principal groups of plants. Prerequisite: Course 1.
3 units, winter quarter (Smith and Assistants) MWF 1:05–3:45
Winter, 9

3. Elementary Systematic Botany.—This course is intended to acquaint the student with the classification of the flowering plants. In addition to the laboratory study of representatives of the more important plant families, the student collects and classifies supplementary species. Prerequisite: Course 1 or 2.
3 units, spring quarter (Wiggins and Assistants) MTW 1:05–3:45
Spring, 10

110. Morphology of the Algae.—Lectures and laboratory work on the morphology and classification of the Algae. (This course is also offered as a five-unit course at the Hopkins Marine Station during the summer quarter.)
3 units, spring quarter (Smith) MTW 1:05–3:45
Spring, 6

111. Morphology of the Bryophytes.—Lectures and laboratory work on the special morphology and classification of the Bryophytes.
3 units, winter quarter (Smith) MTW 8–10
Winter, 5

112. Morphology of the Pteridophytes.—Lectures and laboratory work on the special morphology and classification of the Pteridophytes.
3 units, spring quarter (Smith) MTW 8–10
Spring, 5

113. Morphology and Classification of the Gymnosperms.—Lectures and laboratory work on the anatomy, morphology, and classification of the Gymnosperms.
5 units, autumn quarter (Wiggins) MTWThF 8–10
Autumn, 9

114. Morphology of the Angiosperms.—Lectures and laboratory work on the anatomy of vegetative parts and the morphology and development of the floral organs of Angiosperms.
5 units, autumn quarter (Smith) MTWThF 10–12
Autumn, 9

120. Morphology of the Fungi.—Lectures and laboratory work on the morphology and classification of Fungi. Prerequisite: Course 2.
3 units, winter and *summer quarters (McMurphy) By arrangement
Winter, 3; summer, 2

121. Plant Pathology.—Lectures, laboratory, and field work on fungous and other plant diseases. Open only to students who have had Course 120 or its equivalent.
5 units, spring and *summer quarters (McMurphy) Lec.-Lab. MTWThF 1:05–3:45
Spring, 2; summer, 1

122. Advanced Plant Pathology.—Field and laboratory work on special diseases.
(McMurphy) [Not given in 1929–30]

123. Advanced Mycology.—Field and laboratory work on special Fungi or groups of Fungi.
(McMurphy) By arrangement
Autumn, 1; winter, 3

130. Advanced Systematic Botany.—Lectures and laboratory work on the phylogeny, classification, and geographical distribution of the Gymnosperms and Angiosperms.
3 units, winter and spring quarters (Abrams) MWF 1:05–3:45
Winter, 5; spring, 7

131. Special Taxonomy.—Special problems in taxonomy and geographical distribution.
(Abrams, Wiggins) By arrangement
Autumn, 3; winter, 1; spring, 1; summer, 1

140. Plant Physiology.—The manufacture of food and fuel. Lectures, laboratory work, and reading. Knowledge of the elements of physics and chemistry is required.
5 units, autumn quarter (Peirce) Lab. MWF 8–10; Lec. TTh 9
Autumn, 10

141. Plant Physiology.—The use of food and fuel. Lectures, laboratory work, and reading. Knowledge of the elements of physics and chemistry is required.
5 units, winter quarter (Peirce) ThF 8–10; S 8–12
Winter, 14

200. Journal Club.—Oral reports on the current literature of Botany by the departmental faculty and graduate students.
1 unit, spring quarter M 8 P.M.
Spring, 8

210. Advanced Special Morphology.—The department offers work supplemental to Courses 110, 111, 112, 113, and 114 by means of assigned readings and laboratory study. Its collections are particularly rich in preserved material and microscopic preparations of Bryophytes and Pteridophytes.
(Smith) [Not given in 1929–30]

211. Research in Morphology.
(Smith, McMurphy) By arrangement
Autumn, 1; spring, 2; summer, 1

220. Research in Plant Pathology.
(McMurphy) [Not given in 1929–30]

230. Research in Taxonomy.—The graduate work in taxonomy is given at the Dudley Herbarium in the Museum Building.
(Abrams, Wiggins, McMurphy) By ararngement
Autumn, 2; winter, 2; spring, 1; summer, 1

240. Research in Physiology.
(Peirce) By arrangement
Autumn, 1

The following courses, while listed under Biology or the Hopkins Marine Station, may be credited toward degrees in Botany: Biology 150, 152, 170, 250; Hopkins Marine Station 521, 570, 572, 590.

SUMMER QUARTER

In 1931, and during each summer quarter thereafter, it is expected that work will be offered at the Hopkins Marine Station on the Algae, of both fresh and salt water; and either at the Hopkins Marine Station or at the University, or at both places, the following courses:

Elementary Botany
Taxonomy of Seed Plants
The Physiology of Plants
Research in Morphology and Physiology

DUDLEY HERBARIUM

LeRoy Abrams, Director
James Ira Wilson McMurphy, Curator of Mycological Collection
Ira Loren Wiggins, Curator
Elmer Ivan Applegate, Acting Curator
Roxana Stinchfield Ferris, Assistant Curator

The Dudley Herbarium, named in honor of the late Professor William Russel Dudley, occupies the second floor of the south wing of the Museum Building. The mounted collections consist of approximately 170,000 specimens of vascular plants and 10,000 specimens of the lower cryptogams. Among the more important collections in the Herbarium are the William Russel Dudley and the Samuel B. Parish collections. The Herbarium is especially rich in material from western North America and offers unusual facilities for critical systematic and distributional studies of the flora of that region.

Botanical exploration is carried on each season by one or more members of the staff, and properly qualified students are encouraged to participate in this work.

The special and research courses in taxonomy scheduled in the Department of Botany are given at the Herbarium.

HOPKINS MARINE STATION

Walter Kenrick Fisher, Director
Charles Vincent Taylor, Associate Director
Laurence B. Becking, Harold Heath, Professors
Tracy Elliot Hazen (Barnard College), Acting Professor of Botany (Summer Quarter)
Tage Skogsberg, Associate Professor
Cornelis Bernardus van Niel, Acting Associate Professor of Microbiology
Alfred Clarence Redfield (Harvard University), Acting Associate Professor of Physiology (Summer Quarter)
Victor Ernest Hall, George Eber MacGinitie, Assistant Professors
Harold Mestre, Acting Assistant Professor of Biophysics
Max Walker deLaubenfels, Acting Instructor in Zoölogy
Tadaichi Hashimoto, Research Chemist

ORGANIZATION

The Hopkins Marine Station is a department of the University, controlled by the Board of Trustees, the President, and the Academic Council in the same manner as other departments of the University.

The staff consists of the Director and those resident and visiting members of the University Faculty who participate in the research and teaching program of the Station.

LOCATION AND EQUIPMENT

The Station is situated at Pacific Grove, on the south side of Monterey Bay, California. The ground area comprises seven and a half acres, consisting of the main portion of Cabrillo Point, with complete control of the coast line of the Point and including an excellent sheltered landing place and harbor for boats.

The first unit, the Alexander Agassiz Laboratory, erected in 1917, is of reinforced concrete construction, approximately forty feet by eighty-three feet, and three stories in height. The first floor provides an aquarium room, containing a large floor aquarium and tables for small aquariums; a concrete-floored room for the storage of boats, collecting apparatus, etc.; a store room, furnace room, photographic dark room, and two research rooms.

The second floor, into which the main entrance opens, is devoted to the three large general laboratories. Two private laboratories for instructors are also provided on this floor. The third floor contains a large library, with a generous fireplace, an adjoining instrument room, an advanced laboratory, and seven private laboratories for investigators. Fresh and salt water are provided in each laboratory, the sea water being pumped to a concrete tank upon the roof, whence it is distributed to the various aquarium tables. Heating is provided by a hot-air system, and electric lights and gas are installed. From the third floor a stairway gives access to the flat, parapeted roof.

There are thus five laboratories available for classes and eleven private laboratories for investigators.

The construction of a second unit of the station, known as the Jacques Loeb Laboratory, was completed in July, 1928. The new building, devoted

to experimental biology, is of reinforced concrete construction and consists of a two-story central portion, with two flanking wings of one story, enclosing three sides of a front court, the over all dimensions being ninety-five by one hundred fifty-two feet.

The eastern half of the first floor consists of a general laboratory, thirty-three by twenty-four feet, three advanced laboratories, four private rooms, two store rooms, and an office. The western half comprises a chemistry laboratory, two other large rooms for special work, a thermostat room, a balance room, a small store room, a special apparatus room, two small special laboratories, three small dark laboratories, a photographic dark room, and a general office. The principal laboratories and private rooms are supplied with sea water, hot and cold fresh water, gas, direct and alternating current, compressed air, and vacuum outlets. Heating is by steam. The second story consists of two stack rooms, a reading room, and two private rooms.

The adjacent boiler house, in addition to the central installation for the various systems of pipes, contains a store room and a work shop.

A new sea water tank has been constructed west of the building, on an elevation of rocks, so that all vibration from pumps is eliminated. The new pumping station is on the extreme western part of Cabrillo Point, where a supply of pure sea water is available.

WORK OF THE STATION

The Hopkins Marine Station is open during the entire year and maintains a permanent staff of resident investigators and technical assistants, and in addition a few visiting staff members during the spring and summer. It provides facilities for visiting investigators, and furnishes elementary and advanced instruction in biology. Graduate and undergraduate courses are specified below.

The research program in a general way will concern itself with oceanic biology. This work will include a hydrobiological survey of Monterey Bay, in co-operation with the State Fish and Game Commission. Special attention will be paid to the relations between the organism and its environment, including a consideration of the composition of sea water in relation to equilibrium with solutes. Various aspects of oceanic bacteriology will be given attention, as well as the spectroscopic and chemical study of bacterial and algae pigments. A systematic survey of the fauna and flora will be undertaken and any promising leads in the natural history of marine organisms will be followed. As a part of the hydrobiological survey, data will be accumulated on the movements of pelagic organisms. Work on normal and controlled development of certain of the invertebrates will be prosecuted, but must of necessity be slow.

Excellent material is therefore available for research in cellular biology, experimental morphology, embryology, and taxonomy. In the last field the need for high-class work, especially among invertebrates, is acute.

Owing to the proximity of oceanic depths it is confidently expected that opportunity will be available, during the hydrobiological survey, for studies in the physiology of deep-water organisms.

NATURAL RESOURCES

The marine flora is rich in brown and red algae, the former including abundant and characteristic kelps of large size.

The wealth of marine forms is in part due to the diversity of environment, which ranges from a rugged granite coast, broken by beaches, to sheltered estuaries alive with mud-loving species.

The groups which especially give character to the fauna are the coelenterates, polyclads, nemerteans, bryozoans, echinoderms, chitons, gastropods, polychaets, the higher crustacea, and the tunicates. Among actinians, Bunodactis, Epiactis, Urticina, and Corynactis are the high lights. The solitary coral, Balanophyllia, is abundant. There are about ninety species of hydroids and in summer the bay is full of Aurelia, Chrysaora, and Pelagia. Scyphistomas are always procurable. Siphonophores and ctenophores are occasionally common but of uncertain occurrence.

For experimental biology an abundance of sea urchins (*Strongylocentrotus purpuratus* and *franciscanus*) is available. The sea star, *Patiria miniata,* is equally good. *Leptasterias aequalis* and *Henricia leviuscula* brood their eggs. The same is true of the small holothurians, *Cucumaria curata* and *Thyonepsolus nutriens.*

There are upward of fifty species of chitons, the largest, *Cryptochiton stelleri,* reaching a length of twelve or fifteen inches. Prosobranch and nudibranch gastropods abound. The large abalone (*Haliotis*) is the outstanding mollusc of the coast. Dorid nudibranchs are conspicuous for their size and brilliant coloring. The bay teems with squid in spring and summer, and octopus, which is common but not easy to procure, reaches a weight of forty pounds.

Among the polychaets there are numerous representatives of Halosydna, Polynoe, Nereis, Leodice, Lumbrinereis, Glycera, and Amphitrite. A large sabellid, Eudistylia, is abundant, while every rock-pool is alive with serpulids. Less easily procured are two species of Arenicola. Sipunculids are abundant and large. Of special interest are two phoronids, *Phoronis vancouverensis* and *Phoronopsis harmeri.* The former carries embryos in summer. Conditions appear to be ideal for flat-worms and nemerteans. Bryozoa, especially the encrusting forms, are conspicuous and compete for available surface with sponges and very thrifty compound ascidians.

Among the crustacea the crabs are most conspicuous, but of more interest is the primitive burrowing shrimp, Callianassa, and the pistol shrimp, Crangon (Alpheus). Hippa is abundant as are also pagurids and several mysids. Barnacles of several species are very abundant, on the granite, and of course swarms of isopods and amphipods.

Mention should be made of the hag-fish, Polistotrema, of the chimaeroid, *Chimæra colliei,* and of the midshipman, *Porichthys notatus,* which is equally interesting for its conveniently deposited eggs and numerous photogenic organs.

The plankton of the bay is rich in larval forms and protozoa.

ADMISSION AND FEE

Candidates for admission should make application to the Director, Hopkins Marine Station, Pacific Grove. The application should state whether admission to the Lower, Upper, or Graduate Division is desired, and in which of the following classes the candidate expects to register:

Class A. Special workers not expecting formal credit and not candidates for degrees.

Class B. Assigned students from institutions which have agreed to accept work completed at the Station in fulfillment of their requirements.

Class C. Fully matriculated students in Stanford University.

(For detailed information regarding procedure and credentials necessary for admission, and the courses offered, see the *Announcement of the Hopkins Marine Station.*)

The General Fee (covering all charges), is $85 per quarter for all graduate and undergraduate students taking regular courses or pursuing special work.* Ten dollars of the General Fee for reservation of laboratory space is due at the time of application, and the balance on registration day (*except that for the summer quarter the balance must be paid by June 15.*)

Visiting investigators are charged for the use of instruments and materials not to exceed fifty dollars per quarter.

Late registration will be permitted only with the approval of the Director and of the instructors concerned.

Students will not be accepted for half-quarter registration in any except graduate courses.

COURSES OF INSTRUCTION

Winter Quarter, 1930

Formal courses will not be offered. Special work for graduate and Upper Division students will be offered by the staff along the lines indicated by formal courses listed below (see also work of the Station above).

Spring Quarter, 1930

[Instruction begins March 31 and ends May 31]

508. Elementary Physiology.—The chief functions of cells, tissues, and organs in relation to structure, as illustrated by marine invertebrates. Students are urged to take Course 510 as a correlative.
5 units (Becking) By arrangement
Spring, 4

510. Marine Zoölogy. — An introduction to the principles of general zoölogy as these are illustrated by the animals of Monterey Bay. Limited to fourteen students.
5 units (MacGinitie) Three forenoons per week
Spring, 12

515. Vertebrate Zoölogy.—A study of the evolution of vertebrate form and structure as expressed by the different classes and by adaptations within a selected class. Equivalent to Comparative Anatomy. Limited to fourteen students.
5 units (Skogsberg) Three afternoons per week
Spring, 15

530. General Microbiology.—See same course, Summer Quarter. *Students accepted only after personal conference.*
5 units (van Niel) By arrangement
Spring, 1

536. Problems in Physico-chemical Biology.—See same course, Summer Quarter.
(Mestre) [Not given in 1930]

540. Marine Invertebrates.—An advanced course dealing with anatomy, classification, and development in certain groups of marine invertebrates. Continued during summer quarter as 541; credit given for either course

* For increased fee to be charged, beginning with the autumn quarter of 1930, see page 128.

alone. Open only to students who have had practice in dissection and laboratory methods. See Course 541, Summer Quarter. Limited to twelve students.
5 units (Fisher) [Not given in 1930]

550. Vertebrate Embryology.—See same course, Summer Quarter.
5 units (Heath) Three forenoons per week
Spring, 17

559. Individual Work.—See same course, Summer Quarter.
(Fisher, Heath, MacGinitie, Skogsberg) [Not given in 1930]

575. Research in General Physiology and Microbiology.—For graduate students only.
(Becking, Mestre, van Niel) By arrangement
Spring, 3

580. Research in Zoölogy.—The original investigation of problems connected with the development, structure, and natural history of invertebrates.
(Fisher, Heath, MacGinitie, Skogsberg) By arrangement
Spring, 4

Summer Quarter, 1930

[Registration, June 19; instruction begins June 20; instruction ends August 23; students are not accepted for half-quarter registration except in graduate work.]

511. Marine Zoölogy.—The object of this course is to give the student the widest possible acquaintance with the animals which live along shore and in the plankton of Monterey Bay. The prescribed work also includes a study of the associations of animals, their distribution, and something of their behavior, or simple reactions. May be undertaken by beginning students. Limited to fourteen students. (See Course 541.)
5 units (Fisher) [Not given in 1930]

521. The Algae.—Lectures and laboratory work on the various classes of algae. Particular attention is given to the marine algae of the Pacific Coast. Limited to fourteen students.
5 units (Hazen) By arrangement
Summer, 12

530. General Microbiology.—A laboratory course in which the student becomes acquainted with the principal methods used in microbiological work. Representatives of most of the important groups of saprophytic micro-organisms are studied, chiefly from the standpoint of their rôle in nature. Emphasis is laid on the saprophytic bacteria. Prerequisites: Chemistry 121 and 123.
(van Niel) By arrangement
Summer, 3

535. Physico-chemical Biology.—A general introduction to the application of physical laboratory methods to biochemical problems. Lectures, laboratory, and assigned reading to suit individual needs. Prerequisites: at least one year each of physics, chemistry, and biology.
5 units (Mestre) Three half days per week
Summer, 7

536. Problems in Physico-chemical Biology.—Small problems arising from the general research program of the laboratory will be assigned to individual students. This work may be undertaken concurrently with Course 535 by properly qualified Upper Division and graduate students.
(Mestre) By arrangement
Summer, 3

539. Physiology of Marine Organisms.—A study of the principles of physiology as illustrated by the life of the ocean. The instruction is in-

formal and is determined as to character by the interests and capabilities of the students enrolled. The work is mainly experimental, supplemented by lectures and conferences as occasions arise. An elementary working knowledge of biology and chemistry is assumed. Textbook: *The Elements of Physiology,* Martin and Weymouth. Enrollment limited to twelve Upper Division and graduate students.

5 units (Redfield, Hall) By arrangement
Summer, 8

541. Marine Invertebrates.—An advanced course dealing with the marine invertebrates of the region from the standpoint of anatomy, classification, and ecology. Limited to twenty-six students.

5 units (Section I, Skogsberg; Section II, Fisher, deLaubenfels) Forenoons
Summer, 16

545. Field Ecology.—A course primarily for biology majors designed to give an understanding of animal communities and the life activities of individual members of these communities in response to certain environmental factors. Prerequisite: a course in general zoölogy. Limited to eight students.

(MacGinitie) By arrangement
Summer, 6

550. Vertebrate Embryology.—A study of the early history of the germ layers in the starfish, followed by a detailed study of the early development of the salamander and mouse. Limited to fourteen students.

5 units (Heath) TThS forenoons
Summer, 16

559. Individual Work.—*Properly qualified* students are encouraged to undertake individual work on one species or a group, with reference to morphology, development, classification, or natural history. *Students accepted only after personal conference.*

(Fisher, Heath, deLaubenfels, MacGinitie, Skogsberg, Taylor) By arrangement
Summer, 8

570. Research in Biology of Protoplasm.—Investigations on the physico-chemical and physiological properties of protoplasm with the aid of improved methods of micromanipulation.

(Taylor) By arrangement
Summer, 3

575. Research in General Physiology and Microbiology.—For graduate students only.

(Becking, Hall, Mestre, van Niel, Redfield) By arrangement
Summer, 2

580. Research in Zoölogy.—The original investigation of problems connected with the development, structure, and natural history of marine animals.

(Fisher, Heath, deLaubenfels, MacGinitie, Skogsberg) By arrangement
Summer, 9

590. Research in Plant Morphology.—For students who wish to undertake original work in plant morphology. The richness of the marine flora makes the Station a particularly favorable place for research in the morphology of marine algae.

(Hazen) By arrangement
Summer, 1

Courses 510 or 511, 515 and 550 will count toward the requirements in Biology for those desiring to register in Medicine. Courses 508, 510 (511) or 540 (541), 521, and 550 may be taken together. Courses 510 or 511, 540 or 541, and 550 are major requirements in the Department of Zoölogy.

PHYSIOLOGY

Oliver Peebles Jenkins, Professor Emeritus

Ernest Gale Martin, Professor
James Percy Baumberger, James Rollin Slonaker, Frank Walter Weymouth, Associate Professors
Alfred Clarence Redfield (Harvard University), Acting Associate Professor (Summer Quarter)
John Field, II, Victor Ernest Hall, George Daniel Shafer, Assistant Professors

The Department of Physiology offers major programs suited to the needs of three classes of undergraduates; (1) those preparing for the medical profession; (2) those preparing to become teachers and investigators in General Physiology, a field which concerns itself with the fundamental properties of protoplasm, both plant and animal; (3) those preparing for careers as teachers and investigators in the field of the special physiology of the higher animal organisms, including man.

The department is also prepared to guide suitably prepared graduate students in carrying out programs leading to the degrees of Master of Arts and Doctor of Philosophy. Upper Division students who are not majors in the department are admitted to all courses offered by the department for which they are qualified by their previous training.

REQUIREMENTS FOR GRADUATION

Major students are required to present credits in quantitative analysis, organic chemistry, mechanics and heat, electricity, lenses, comparative anatomy, and either embryology, histology, or cytology. To avoid schedule conflicts as much of this preparatory work as possible should be taken in the Lower Division.

In addition to the above preparatory work the departmental requirements are satisfied by completing any one of the following groups of courses: I. Physics 100 (Modern Physics); Chemistry 141, 142, and 143 (Biochemistry); Physiology 103, 104, 105, one unit each of 106 and 206; five units of approved advanced work in the School of Biological Sciences. (This is the program ordinarily followed by students who are registered in medicine during their senior year.) II. Physics and Chemistry as in Group I; Physiology 103, ten units of 150 (or five of 150 and five of 539), one unit each of 106 and 206; five units of approved advanced work in either the School of Biological Sciences or the School of Physical Sciences. III. Physics and Chemistry as in Group I; Physiology 101, 102, ten units of 150 (or five of 150 and five of 539), one unit each of 106 and 206; five units of approved advanced work in either the School of Biological Sciences or the School of Physical Sciences. Courses taken elsewhere will be accepted in lieu of any of the above to which they are equivalent.

GENERAL PHYSIOLOGY

The department has facilities for work in General Physiology in full accordance with the exacting quantitative standards demanded by modern techniques. The equipment is adequate for the study of many of the physico-

chemical properties of protoplasm and of its environment. Special attention is being paid at present to oxidation-reduction phenomena. Through the close connection of the department with the Hopkins Marine Station exceptional opportunities are available for the study of problems in which marine plants or animals can be used advantageously.

VERTEBRATE PHYSIOLOGY

The laboratory is well equipped for the study of the physiology of the higher animal organisms. At present the metabolism of mammals under various experimental conditions is being actively investigated. A colony of rats is also maintained, with cage equipment by which voluntary activity as related to diet, sex, and other conditions is being studied.

HUMAN PHYSIOLOGY

Various problems in human physiology are constantly being investigated. By co-operation with the Department of Psychology the facilities for the study of the special senses, particularly vision and hearing, are unusually complete. For example, the laboratory is equipped with an illuminometer, with all the more important types of phorometers for the measurement of eye muscle balance, with an Ives visual acquity apparatus and other related instruments. The Barkan collection of works on ophthalmology in the Lane Medical Library makes available a particularly complete representation of the literature of this field.

LIBRARY

The Biology library is well supplied with current books and periodicals and has complete sets of all the important physiological journals, as well as abstract journals and indices in related sciences and a full set of the Concilium Bibliographicum cards for physiology. Most of the less common publications are available in the Lane Medical Library.

ADVANCED DEGREES

For the degree of Master of Arts the department will require in general a full year (forty-five quarter units) of advanced work in physiology or closely related fields. It is expected that about two-thirds of this work will be devoted to a special problem whose results are to be embodied in a Master's thesis. It is expected also that the student will be prepared to submit to examination covering such portions of the general field of physiology as are related to the special field of study. For example, a student whose field is general physiology should be prepared for examination in the principles of general physiology. One whose work is in special applications of physiology to mammals or man should prepare to be examined in human physiology.

Candidates for the degree of Doctor of Philosophy must conform to the University requirements as regards minor subjects; for the major in physiology it is expected that the equivalent of six quarters will be devoted in the main to work upon a problem involving original investigation and leading to results which shall be of sufficient importance to justify their publication in physiological journals as well as their presentation in the form of a Doctor's dissertation. Registration for the advanced work will be in Courses 207 and 208.

THE TEACHER'S RECOMMENDATION

Programs are offered for students seeking the teacher's recommendation as follows: Teaching major: Elementary Chemistry; Biology, eighteen units, including one of the following: Comparative Anatomy, Vertebrate Embryology, the Biology of Protoplasm, or Histology; Physiology, fourteen units (Course 103, and at least nine units from Courses 104, 105, 150, and 539).

Teaching minor: Elementary Chemistry; Biology, nine units (Courses 1 and 2); Physiology, ten units (Courses 101 and 102).

COURSES OF INSTRUCTION

101. Elementary Physiology.—The structure and functions of the body with especial reference to the mechanisms of external adaptation, namely, muscles, nervous system, and sense organs. Designed primarily for students who are not looking forward to the study of Medicine. Intended to impart a general conception of the relationship of the human body to its environment. Textbook: *The Human Body,* Martin, Advanced Course, Eleventh Edition. Open to Upper Division students and to Lower Division students who have had college courses in Biology and Chemistry.

5 units, autumn quarter (SHAFER) Lec. MWF 10; Lab. ThF 1:05–4:05
Autumn, 33

101S. Elementary Lectures.—A lecture course open to qualified students. The subject matter of Course 101 is covered. Textbook: *The Human Body,* Martin, Advanced Course, Eleventh Edition. Given only in alternate years.

3 units, summer quarter, first term (SHAFER) [Not given in 1929–30]

102. Elementary Physiology.—The structure and functions of the body with especial reference to maintenance, growth, and energy liberation. In this course, special attention is paid to circulation, digestion, excretion, and metabolism. Although designed to offer in connection with Course 101 a survey of the field of human physiology, this course is planned so that it may be taken independently of Course 101. Textbook: *The Human Body,* Martin, Advanced Course, Eleventh Edition. Requirements for admission the same as for Course 101.

5 units, winter quarter (SHAFER) Lec. MWF 10; Lab. MT 1:05–4:05
Winter, 31

102S. Elementary Lectures.—A course covering the subject matter of Course 102. Given in alternate years.

3 units, summer quarter, first term (SHAFER) MTWThF 9
Summer, 22

103. Principles of Physiology.—An advanced study of the fundamental principles of physiology. The course is planned to serve as an introduction to general physiology on the one hand and also to the special physiology of the higher organisms on the other. It is devoted (1) to a survey of the nature and properties of protoplasm; (2) to a study of the relation of protoplasm to the various factors which constitute its environment; (3) to some consideration of the multicellular structure as a factor affecting the physiology of the entire organism and its constituent cells. Textbook: *The Elements of Physiology,* Martin and Weymouth. Prerequisites for majors: quantitative analysis and organic chemistry (biochemistry should precede or accompany the course); college physics; and either comparative anatomy, embryology, histology, or cytology. Advanced students of other departments presenting less than these prerequisites may be admitted on recommendation of their major departments provided their previous training

is of a character to enable them to take the course with profit; it is desirable that such training include Biology and Elementary Chemistry.

5 units, winter quarter (MARTIN, BAUMBERGER, FIELD, HALL) Lec. MWF 8; Lab. ThF 1:05–4:05

Winter, 72

104. Physiology of Maintenance.—The detailed application to man of the general principles developed in Course 103, so far as they relate to bodily maintenance. The laboratory work is based, as far as possible, on mammals, including the human body itself. Textbook: *The Elements of Physiology,* Martin and Weymouth. Prerequisite: Course 103.

4 units, spring quarter (MARTIN, BAUMBERGER, FIELD, HALL) Lec. TTh 11; Lab. ThF 1:05–4:05

Spring, 53

105. Physiology of External Adjustment.—The detailed application of the principles developed in Course 103 to the mechanisms by which in mammals and man the organism is adjusted to its environment; thus comprising a study of the sense organs, the nervous system, and the motor apparatus. Textbook: *The Elements of Physiology,* Martin and Weymouth. Prerequisites as in Course 103 with Physics 3 in addition. Advanced students of other departments may be admitted on the terms stated under Course 103 provided they present such work in the anatomy of the nervous system and sense organs as will enable them to profit by the course.

5 or 6 units, spring quarter (WEYMOUTH, FIELD, HALL) Lec. MWF 11; Lab. TW or ThF 1:05–4:05

Spring, 8

106. Journal Club.—An introduction to the utilization of biological literature, including bibliographic methods, abstracting, preparation, and presentation of reports, and critical evaluation of original papers. This course or its equivalent required of candidates for a degree in this department.

1 unit, autumn, *winter, *spring quarters (WEYMOUTH) By arrangement

Autumn, 2; winter, 4; spring, 4

150. Advanced General Physiology.—Detailed quantitative study of certain of the fundamental principles of physiology. The subject matter will vary with the type of problems under way. Each student will work on a special topic. The work of the whole laboratory, including the technique and principles involved in each problem, will be correlated and extended by assigned reading and by seminar discussion. Offered only when as many as six students enroll. Prerequisites for majors as for Physiology 103; in addition, Physiology 103 or Physiology 101 and 102. Textbook: *The Principles of General Physiology,* 4th edition, by W. M. Bayliss.

5 to 10 units, winter and spring quarters (BAUMBERGER) [Not given in 1929–30]

206. Seminar in Physiology.—A weekly meeting of department faculty, graduate, and properly qualified undergraduate students of this and allied departments, for the presentation and discussion of recent advances in physiology which in the course of a series of years will cover the entire field. Prerequisite for majors: Course 106, or equivalent. Courses 106 and 206 required of candidates for a degree in Physiology.

1 or 2 units, autumn, *winter, and *spring quarters (WEYMOUTH) By arrangement

Autumn, 6; winter, 6; spring, 3

207. Special Physiology.—An advanced non-laboratory course open to students who have had one or more Upper Division courses in Physiology. Designed to afford opportunity for the further study of selected subjects in Physiology. The work is planned for the individual student.

1 to 5 units, any quarter (DEPARTMENT FACULTY) By arrangement

Autumn, 3; winter, 2; spring, 2; summer, 2

208. Research in Physiology.—Special problems involving laboratory work.
(Department Faculty) By arrangement
Autumn, 2; winter, 2

SUMMER QUARTER

539. Physiology of Marine Organisms.
5 units, summer quarter (Hall, Kedfield) [Given at Hopkins Marine Station]
Summer, 8

PUBLIC HEALTH NURSING

Walter Greenwood Beach, Professor of Social Science
Louis Olsen, Acting Instructor in Public Health
Flora May Fearing, Acting Instructor in Political Science and Public Health Nursing
Albert Walton, Acting Instructor in Psychology

Economics 2: Elementary Sociology.—An elementary study of social principles and problems as found in modern life. Not open to freshmen and not to be taken in lieu of the course in Citizenship.
5 units, summer quarter (Beach) MTWThF 8
Summer, 52

Political Science 119a: Quantitative Studies in Politics and Administration.—A course designed for (1) those students interested in the problem of methods in the measurement and analysis of political phenomena; and (2) those who desire practice in quantitative treatment of governmental problems. The class will study the elementary statistical methods appropriate for dealing with administrative problems, with special emphasis upon (1) serviceable methods of gathering primary data; (2) tabulation of such data; (3) their presentation in such form that they may be used by the public for intelligent analysis and comparison. Students may choose problems in the fields of their immediate interest.
2 units, summer quarter, July 29–August 29 (Fearing)
TTh 2–5 and one hour by arrangement
Summer, 9

Psychology 51: General Psychology.—Survey of the field of mental life. The point of view, methods, and the experimentally attested facts of the science are presented. The primary emphasis is on normal adult psychology and applications to control of human behavior. Animal and abnormal fields are also outlined. Lectures, demonstrations, and exercises. Freshmen, seniors, and graduates may enroll by special arrangement. Extra work is required of seniors and graduates.
5 units, summer quarter (Walton) MTWThF 11
Summer, 53

Public Health 1: Health Department Administration.—This course will consist of lectures on the activities, organization, and powers of public health departments, supplemented by laboratory and field work.
2 units, summer quarter, June 24–July 24 (Olsen) TTh 2–5
Summer, 24

ZOÖLOGY

GEORGE CLINTON PRICE, Professor Emeritus

JOHN OTTERBEIN SNYDER, RENNIE WILBUR DOANE, WALTER KENRICK FISHER, HAROLD HEATH, CHARLES VINCENT TAYLOR (Biology), Professors

GORDON FLOYD FERRIS, MARY ISABEL MCCRACKEN, EDWIN CHAPIN STARKS, FRANK WALTER WEYMOUTH (Physiology), Associate Professors

BARTON WARREN EVERMANN, RICHARD CRITTENDEN MCGREGOR, WILLIS HORTON RICH, CASEY ALBERT WOOD, Lecturers.

The Department of Zoölogy offers courses which are carefully planned and so flexible as to place no limit on the student of ability, while in many cases the needs of individuals are considered.

Graduation.—Before graduation in Zoölogy, students must complete Courses 1, 2, 100, 104, 160 (4 units), and 541 and 550 at the Hopkins Marine Station, or satisfactory substitutes, together with at least 20 units of additional elective work in the department. Before graduation, a student is expected to have a reading knowledge of German or French, and to have completed one or more elementary courses in Botany, Physiology, Physics, or Chemistry. It will be noted that the requirement involves enrollment for one quarter at the Hopkins Marine Station.

Students who look forward to the study of medicine may take Zoölogy for their major subject and receive the degree of Bachelor of Arts at the close of a four years' course which shall also contain the first year in medicine. Twenty units of work in the department will be required of such students, including Courses 1, 2, 108, and electives.

Advanced Degrees.—For graduate study leading to the degrees of Master of Arts and Doctor of Philosophy both material and literature are available in the morphology, embryology, and classification of the principal phyla. The proximity of exceptionally rich collecting grounds on the ocean shore, especially at Monterey Bay, where is located the marine biological laboratory of the University, offers unusual facilities for obtaining material and for the investigation of living forms. The department is well prepared to offer work in Entomology, either systematic, biologic, or economic. The laboratories and libraries are well equipped with apparatus, journals, reprints, and books, and special provision will be made for the needs of individual graduate students.

The Teacher's Recommendation.—The Department recommendation for a teacher's certificate in Zoölogy requires the following courses: (Zoölogy as a major) 1, 2, 100, 104, and 541 and 550 at the Hopkins Marine Station, or satisfactory substitutes, and 6 units to be elected; (Zoölogy as a minor) 1, 2, 100, 104, or satisfactory equivalents.

Majors in Biology who elect Zoölogy as a minor will be required to complete Zoölogy 1, or its equivalent, and certain other courses amounting to 15 units in all.

Equipment.—The collections of the Natural History Museum are extensive in littoral and bathybial forms of the northern and tropical Pacific.

There is a full representation of the fishes of North America; extensive series of the deep waters of the Pacific, and large collections from the West Indies, Hawaiian Islands, Samoa, the Philippines, Bering Sea, Japan, and the Coasts of Mexico and Central America. The museum contains also a large representation of the reptiles, batrachians, birds, and mammals of the West. The collection of marine invertebrates is rich in echinoderms and crustacea, and contains a good working nucleus in other groups. The series of deep sea forms is especially valuable. The entomological collections contain authoritatively named specimens in most of the orders of insects. There are available as a basis for research certain unusually extensive collections in special groups, notably the Coccidae, the collection of which is one of the most important in existence, the Mallophaga, Anoplura, and other ecto-parasitic groups, and in the Aphids, Diptera, etc. There are also large series illustrating the development, habits, and adaptations of insects, particularly those of economic importance.

A small experimental orchard and an apiary and a lathhouse also add to the opportunities to do practical outside work.

Laboratory Fees.—Courses 1, 2, 105, 108, each $5; 100, 103, 104, 106, 107, 150, 153, 154, 155, 156, 157, each $3; 101, 102, 158, each $.50.

COURSES OF INSTRUCTION

[Courses 1, 101, and 102 may be taken without previous preparation in Zoölogy.]

1. General Zoölogy.—An introduction to the natural history, morphology, and physiology of animal life. Lectures, laboratory, and field work. This course is prerequisite to all other courses in the department except where otherwise stated. (See also its equivalent, Marine Zoölogy [Zoölogy 511], under Hopkins Marine Station.)

5 units, autumn and *spring quarters (Taylor, Ferris) MTWThF afternoons
Autumn, 47; spring, 17

2. Comparative Anatomy of the Vertebrates.—A detailed examination of vertebrate morphology, including dissection of representatives of the several classes of vertebrates, with comparative studies in vertebrate osteology, the nervous and circulatory systems. Not open to first-year students in winter quarter.

5 units, winter and *spring quarters (Starks) MTWThF afternoons
Winter, 55; spring, 12

100. The Vertebrates.—A general course in the classification of vertebrate animals, with studies in their habits and the geographical distribution of species. The course is largely devoted to birds. It includes field excursions, and observations of live animals in the laboratory. Open to all students.

5 units, spring quarter (Snyder) MTWThF 1:15–3:45
Spring, 18

101. General Entomology and Insect Adaptations.—A course of lectures and demonstrations. Open to all students.

2 units, autumn quarter (Doane) Lec. TTh 9
Autumn, 74

102. Insects and Disease.—A discussion of the insects that cause or disseminate some of the diseases in man and the domestic animals. Lectures and demonstrations. Open to all students.

2 units, winter quarter (Doane) TTh 9
Winter, 174

103. Arthropod Zoölogy.—A general survey of the arthropoda as an introduction to the study of insects.
3 units, winter and spring quarters (Ferris) MTWThF forenoons
Winter, 9; spring, 1

104. Classification of Insects.—This course includes laboratory and field work, and is intended to give the student a basic knowledge of the local insect fauna and its relation to its environment, and to acquaint him with the methods and principles of systematic entomology.
5 units, spring quarter (McCracken) Forenoons by arrangement
Spring, 28

105. Morphology of Insects.—A study of insect structures and their significance, involving an introduction to the technical methods of the entomologist.
5 units, autumn and winter quarters (McCracken) Forenoons by arrangement
Autumn, 12; winter, 1

106. Economic Entomology: Forest Insects.—A study of the insect enemies of forest and shade trees. The course includes field, laboratory, and bibliographic work. Prerequisite: Course 104.
3 units, autumn quarter (Doane) MWF afternoons
Autumn, 3

107. Economic Entomology: Orchard and Garden Insects.—A study of the principal injurious and beneficial insects of the orchard and garden. Includes field, laboratory, and bibliographic work, and occasional lectures. Prerequisite: Course 104.
3 units, spring quarter (Doane) MWF afternoons
Spring, 3

108. Mammalian Anatomy.—A detailed study of one or more systems of organs of the cat. To be preceded by Course 2.
5 units, autumn and spring quarters (Starks) MTWThF afternoons
Autumn, 11; spring, 10

150. Vertebrate Zoölogy.—Special studies for advanced students in the fields of herpetology, ornithology, or mammalogy; practice in museum methods, in field observations, and in the collection and preparation of specimens with data.
2 to 5 units, winter or spring quarter (Snyder) By arrangement
Winter, 1; spring, 2

151. Principles of Nomenclature.—A series of lectures dealing with the principles of biological nomenclature and intended to meet the needs of students from any of the biological departments.
1 unit, spring quarter (Ferris) By arrangement
Spring, 11

152. Ectoparasites.
3 to 5 units, autumn quarter (Ferris) By arrangement
Autumn, 10

153. Special Problems in Economic Entomology.—The student is here given an opportunity to make a more or less detailed study of some insect or group of insects of economic importance. Field, laboratory, and bibliographic work are included.
3 to 5 units, autumn and winter quarters (Doane) By arrangement
Autumn, 2; winter, 2

154. Special Problems in Entomology.—Studies in the classification, structure, or biology of certain groups of insects, such as the Coccidae and the various ectoparasitic orders, with particular reference to the methods of research in such groups.
3 or more units, autumn, winter, or spring quarter (Ferris) By arrangement
Autumn, 5; winter, 7; spring, 17

155. Special Problems in the Life History, Morphology, or Taxonomy of Insects.—An introduction to research methods in the field of entomology. Problems are assigned with reference to the student's special interest or fitness.

3 to 5 units, autumn, winter, or spring quarter (McCracken) By arrangement
Autumn, 2; winter, 2; spring, 3

156. Special Courses in Vertebrate Zoölogy.

a) Primitive chordates; a study of Amphioxus, the tunicates, and the lampreys.

b) Comparative osteology; modifications of the vertebrate skeleton.

c) The fishes; special problems in the morphology of fishes, or in the review and classification of groups of West Coast fishes.

These courses are arranged to meet the needs of students who are qualified to carry on independent work.

3 to 5 units, autumn, winter, and spring quarters (Starks) By arrangement
Autumn, 2; winter, 2; spring, 2

157. Ichthyology.—An introduction to problems relating to the life history of fishes, the discrimination of species, or a critical examination of some group.

3 to 5 units, autumn, winter, and spring quarters (Snyder) By arrangement
Autumn, 1; winter, 5; spring, 3

158. Bionomics.—A survey of facts and principles bearing upon organic evolution. Primarily for advanced students. Assigned reading and reports.

2 units, winter quarter (Taylor) Lec. TTh 11
Winter, 21

159. Problems in Fishery Resources.—A study of selected biological problems encountered in the investigation of fishery resources, especially growth and related questions involving statistical treatment. Weekly conferences may be supplemented by illustrative work to meet the needs of particular students.

1 to 5 units, autumn and winter quarters (Weymouth) By arrangement
Autumn, 10; winter, 10

160. Journal Club.—Open to senior and graduate students.

2 units, autumn and winter quarters (Snyder) By arrangement
Autumn, 9; winter, 12

201. Research.—Prosecution of special studies by advanced and graduate students. The work may be done either in the University or at the Hopkins Marine Station.

(Members of the Department) By arrangement
Winter, 8; spring, 9

GRADUATE SCHOOL OF BUSINESS

Willard Eugene Hotchkiss, Dean
George William Dowrie, Boris Emmet, Paul Eugene Holden, Jacob Hugh Jackson, *Eliot Grinnell Mears, Edward Kellogg Strong, Jr., Professors
Frank Macy Surface, Acting Professor (Autumn and Winter Quarters)
Theodore Otte Yntema, Acting Associate Professor
Vernon Dale Wickizer, Instructor
Lillian Caroline Owen, Secretary

OBJECTIVES OF GRADUATE BUSINESS TRAINING

The purpose of the University and of the business men who gave their support to the establishing of the Graduate School of Business was to set up a school in which selected men and women might be educated for business. This thought, as developed and clarified in the Conference on Business Education,† makes it the chief concern of the School along with preparation for immediate service after graduation, to develop habits of thought and action that will make for continuous growth in capacity for executive leadership.

Assuming the proper amount and quality of native ability and of achievement, educational and otherwise, up to the time of entering the School, the following are believed to be among the most essential objectives in the further training of the student who intends to make business a career:

1. An understanding of what business is and of the way it has come to occupy its present place in human affairs.
2. Knowledge and appreciation of the human and material forces with which business has to deal.
3. Mastery of basic principles of management.
4. Ability to use the tools and technical equipment through which business is administered and controlled.
5. Training in the application of principles in analyzing and handling concrete business situations.
6. The development of a capacity for decision and action based on intelligent analysis of essential facts.

QUALIFICATIONS OF THE BUSINESS EXECUTIVE

A business executive, using the term in the only sense that is acceptable as an objective of university training, is a person who does important discretionary and directive work—work that is potentially creative. Such work

* Absent on leave, 1929–30.

† Following the opening of the Graduate School of Business in October 1925, a conference of outstanding business men and educators was called in March 1926 to review the progress in business education and to consider the objectives toward which the new school should direct its work. The conference devoted three days to systematic discussion of these subjects.

The report of the conference, published by the University as *Stanford Business Series No. 1*, is believed to be a significant contribution to the literature of business and business education. Copies of the report may be had upon application to the Secretary of the Graduate School of Business.

requires today a range of knowledge and understanding that cannot be acquired without schooling in the methods and processes of scientific analysis. Ability to locate facts and to sift the essential from the non-essential, and the habit of basing action on a careful analysis of essential data, are qualities which it is peculiarly the province of a graduate school to develop.

At the same time, it must be recognized that analysis is unproductive unless it leads to decision and action. Wise and timely action is of the essence of executive leadership. The School aims therefore constantly to confront the student with questions of business policy and procedure that call for positive action upon the facts which investigation brings to light.

THE UNITY OF MANAGEMENT

Business schools came into the system of higher education at a time when specialization in professional study was at its height. It was natural therefore for the scientific study of business to be directed largely toward the functional divisions of business—accounting, production, finance, marketing, advertising—rather than management as a whole. It is essential in the further study of business that especial emphasis be placed on management as a unifying and co-ordinating force.

Throughout its program of study the Graduate School of Business emphasizes the essential unity of management. Without neglecting the problems that arise in the several divisions of business, effort is made to develop such habits of mind that students instinctively will think of a business as a unit, and work out the solution of problems with the requirements of the whole business in mind.

INDEPENDENT WORK

The student's work in the School has been organized with a minimum of mechanics and regimentation. As far as possible, principles of management are developed in connection with actual business situations in which the student is thrown on his own resources. Instruction is addressed to selected graduate students, and it is expected that their previous training will have prepared them to work under suitable supervision with a large degree of independence. Achievement depends on the capacity and the effort of the individual.

SUPERVISED FIELD WORK

It must be recognized that the university alone cannot supply that capstone of discipline—actually doing the job. A person who advances through successive positions in a going concern secures a kind of discipline which, though intangible, is nevertheless essential.

However clear the case may be for making business the subject of professional study, it is obvious that replacing apprenticeship with systematic schooling operates to postpone entry into business and to widen the gap between preparation and practice. The period of orientation, even for superior graduates of professional schools, is one of great difficulty and hazard.

In setting up a program for professional business training it appears worth while to provide some means by which a reasonable amount of experience can be supplied before graduation. The student, therefore, generally spends the summer between his two years in the School in supervised work either as an employee of a going business concern or in connection with some

enterprise which requires the practical application of management principles. Completion of the course involves doing this supervised work in a manner acceptable both to the executives of the particular business and to the authorities of the School.

THE SCHOOL'S CONTACTS WITH BUSINESS

It is essential for schools of business to draw much of their material from the reservoirs of educational knowledge to be found in business itself. In order that these reservoirs may become accessible, it is important that the men who teach business in the universities work in close co-operation with responsible business men. The auspices under which the School was founded furnish a setting in the business community that is of great value in giving access to concrete problems which business men are handling.

With a student body definitely limited in numbers, it is feasible to establish for students intimate contacts with business enterprises and problems. The School is fortunate in having a good start in the direction of needed contacts in respect to teaching material, to research, and to plant inspection.

Valuable data for teaching purposes have been placed at the disposal of the School by various concerns engaged in manufacturing, selling, co-operative marketing, and management consulting service. Business enterprises in other parts of the country have already made notable contributions of case and problem material for use in other business schools. Pacific Coast firms have likewise begun to add their contribution to this fund of available teaching material.

Opportunities for faculty and student participation in projects involving economic research and analysis have been opened up through contact with business and industrial groups who have indicated their desire to submit some of their problems to the School for study.

As an integral part of the program of the School, arrangements are made for students to inspect important industrial and commercial plants in the vicinity. Plant visits are co-ordinated with work on the campus by requiring students to discuss, in written reports, typical business problems of each plant visited. Business concerns have shown unusual willingness to co-operate with the School in this respect.

Among those whose plants have been visited in the past are: Anglo & London Paris National Bank; California Cotton Mills Company; California & Hawaiian Sugar Refining Corporation; California Mutual Building and Loan Association; Caterpillar Tractor Company; N. Clark & Sons; The Emporium; General Electric Company; Illinois Pacific Glass Corporation; John Bean Manufacturing Company; Kroehler Manufacturing Company; Montgomery Ward & Company; Mutual Stores; Oakland Airport; Pacific Coast Shredded Wheat Company; Pacific Coast Steel Company; Pacific Gas and Electric Company; Pacific Portland Cement Company; Richmond Chase Company; San Francisco Stock Exchange; Simmons Company of California, Inc.; Sperry Flour Company; Standard Oil Company (Refinery); Virden Packing Company; Walsh, O'Connor & Company; Wells Fargo Bank & Union Trust Company; West Coast Porcelain Company.

PREPARATION AND ADMISSION

Persons who hold a Bachelor's degree from an approved college or university may become candidates for admission.

College students who are looking forward to becoming candidates for admission to the Graduate School of Business are advised to direct undergraduate study toward developing powers of accurate observation and correct habits of thought, both in respect to relatively exact data as found in the laboratory sciences and to the more contingent data of the several social sciences.

In considering the relative merit of applicants, more attention will be given to the quality of work done and to the evidence of promise shown during the student's undergraduate course, than to the particular subjects studied.

Inquiries concerning the Graduate School of Business and requests for application forms should be addressed to the Secretary of the School.

The credentials required are: (1) Personal application for admission with graduate standing, including application fee of five dollars; (2) special application for admission to the Graduate School of Business; (3) official transcript of all college work completed including certificate of degrees received; (4) statements of personal qualifications on blanks furnished by the University.

Special regulations governing admission of women to the University make it necessary for women candidates for admission in October to file credentials by May 1.

[Students are strongly advised not to depend upon outside employment while here for any considerable part of their total expense. Experience has shown that full-time attention to the work of the School is necessary for the best results. It is much better to postpone entrance than to depend upon outside earnings while here.]

FEES

The Application Fee for all candidates for admission to the University, and for all registered students applying for admission to the Graduate Division, is $5, payable at the time of application.

The Tuition Fee for all students in the Graduate School of Business is $115 per quarter.*

The Community Fee for all students is $13 per quarter. This fee covers the privileges of the gymnasia, athletic grounds, hospitals, the Stanford Union or Women's Clubhouse, and membership in the Associated Students.

A diploma fee of $5 is charged all persons receiving degrees from the University, except those who have enrolled for the first time in the graduate or undergraduate divisions of the University since January 1, 1927.

DEGREES

Master of Business Administration

The degree, Master of Business Administration, will be conferred, upon the recommendation of the Committee on Graduate Study, when the student has satisfied the requirements laid down by the faculty of the Graduate School of Business.

* For increased fee to be charged, beginning with the autumn quarter of 1930, see page 128.

Doctor of Philosophy

Students whom the faculty deem qualified to undertake independent, scientific research in business, and who are preparing for teaching or research positions, may become candidates for the degree, Doctor of Philosophy. Candidates for this degree will conform to the general requirements as set forth on pages 163–165.

COURSE OF STUDY

Completion of the course in the Graduate School of Business will involve a minimum of two years' study, including the time spent in supervised field work. Students whose progress is sufficiently rapid to enable them to complete their work in the minimum time will thus be expected to spend six quarters in residence. The two-year program of study is organized under the following captions:

A. Analyzing business situations with regard to the basic human and material aspects which have a bearing upon business organizations and policies.
B. Considering management problems from the standpoint of a coordinated business unit. The first year's work under this heading will center around certain principles of organization and management which govern the proper structure and relationships of a business enterprise. The second year's work will be concerned with questions of general business policy.
C. Studying the chief functional or departmental fields into which business is divided for purposes of effective administration. Of these accounting and finance are given attention during the first year, while production and marketing are considered during the second year.
D. Specializing in a particular field.

FIRST-YEAR PROGRAM

Aspects of Management

As a means of assisting students to acquire a knowledge and appreciation of the human and material forces with which business has to deal, the first-year program includes the study of some of the major aspects of the background out of which modern business enterprises emerge, and in terms of which management must function. These aspects, which must be considered to a greater or less degree in handling business problems, are:

Economic (Business Economics, Business Statistics, Economic and Statistical Analysis): This section of the work affords training in the analysis of the economic factors which affect business policy and practice. An introductory treatment of the economic background of business develops the principles of economics with particular reference to their bearing upon the problems of management. The essentials of statistical method, as an analytical tool of management, are studied in a sequence of laboratory exercises which emphasize the use of numerical and graphic analysis in selected business problems. The student is then ready to enter upon a fuller examination of the economic aspects of management. He learns to consider the problems of business from the quantitative point of view, and to place them in a broad economic setting. He is taught to evaluate the significant economic elements in particular business situations, and to trace the relation of the important

factors in general business and particular industrial conditions to costs, profits, and business stability.

Autumn and winter quarters (YNTEMA, DOWRIE) By arrangement
Autumn (Economics), 33, (Statistics), 42;
winter (Economic and Statistical Analysis), 37

Geographical: A survey is made of major business problems from the geographical viewpoint. Underlying factors which receive consideration are agricultural production and marketing, timber supply, minerals, energy resources, water supply, fuels, climate, population, markets, transportation facilities, financial centers, labor supply, and the increasing distance between production and consumption areas. Emphasis is placed upon problems of agricultural and industrial development.

(MEARS) [Not given in 1929–30]

Psychological: The solution of many business problems is dependent upon what others want and can or will do under certain conditions. The student is introduced, first, to some of the natural limitations of man as seen in learning and retention of skill and knowledge, and in fatigue from work, and also to the fact that human beings differ widely in every respect. Emphasis is placed not only upon information but also upon methods of ascertaining such information and of utilizing it in business. Second, consideration is given to the desires and aspirations of man which must be taken into account in adjusting human relations in business, particularly the relationship of the executive with his subordinates, his co-equals and superiors, and their relationship with customers, investors, and the general public. The psychology of selling and advertising, the determination of what others want and how to meet their demands, and methods of measuring the success of resulting business policies are studied.

Spring quarter (STRONG) By arrangement
Spring, 30

Scientific and Technical: Most major problems of management involve certain scientific and technical aspects. It is the purpose of this study to treat various engineering and cost-accounting phases of management with which the general executive should be familiar.

The work in engineering deals with fundamentals of mechanical drafting, machine design, important mechanisms, machine shop, forging and foundry practice, metallurgy and heat treatment, material and equipment specifications and tests, building construction, lighting, heating and ventilation, power generation and transmission. While only the most elementary treatment is given to these phases, managerial connection and interest is heavily emphasized.

The objectives of the engineering work are to orient students with no engineering background in the technical aspects of factory management, to impress them with the realization that engineering phases are involved in most major business problems, to bring about a recognition that, without a real appreciation of the engineering aspects of business problems, important executive decisions may be made with disastrous results, to emphasize the need for co-ordination between general executives and staff technicians; to equip students with a knowledge as to when an executive should call in or otherwise avail himself of technical talent and assistance, to indicate how and where engineers can best be utilized in industry, and to afford an introduction to the second-year work in Operating Problems of Management.

In cost accounting the student studies the various elements of cost, the standard practices in the allocation of such costs to product or services pro-

duced, and the variety of the problems which confront the executive who desires to be well informed about the costs of his manufacturing operations. The work aims to develop a basis for sound co-operation between managers and technical experts.

Spring quarter (HOLDEN, JACKSON)
Spring, 30

BUSINESS ORGANIZATION

The central management of a business has the task of knitting departments together and of keeping the business functioning as an organic whole. Management determines the common ends toward which effort shall be directed and maintains co-ordination between departments.

Study will be made of the way management is organized, of the way line, staff, departments, and functions in a highly organized business co-operate in making and executing decisions, and of the way authority is delegated and controlled. Attention will be given to the influence of historical and personal considerations in determining organization policy and procedure, especially in cases in which concerns are undergoing reorganization.

Emphasis will be placed upon the applications and limitations of standardization, upon means of preserving flexibility in an organization, and upon ways of making provision in the structure of a business for its orderly development and growth. Distinction throughout will be drawn between scientific and rule-of-thumb methods of dealing with organization problems. The aim will be to foster a habit of regarding business problems primarily from the viewpoint of general, as distinguished from divisional, management.

Autumn and winter quarters (EMMET) By arrangement
Autumn, 45; winter, 37

ACCOUNTING, FINANCIAL, AND LEGAL PROBLEMS OF MANAGEMENT

Because of their fundamental importance and universal usage, a fairly thorough study of accounting and finance is made during the first year; the work of the second year may thus be undertaken with a sound understanding of the relation of the financial and accounting activities to other major activities of an enterprise.

During the first quarter emphasis is laid upon the fundamental and universal principles that accountants must constantly use in their work. Such principles are also fundamental to the business manager who is to get the most out of the work of the accountant. The development of the bookkeeping mechanism, the principles of labor-saving devices and of accounting controls, and the preparation of statements of various kinds constitute the work. The aim of this section of the work is to develop accounting as a tool of analysis and control, rather than as a technical specialty.

The accounting problems considered include valuation and depreciation, the construction and interpretation of financial statements, stock control, systems of internal check, and budgetary control of financial and operating matters. Special accounting, financial, and legal problems with reference to reorganizations and other matters are also studied.

On the financial side, attention is given to the factors that determine financial policies, such as the amount of investment needed, character of security issues, requisite working capital, establishment and support of lines of credit, and dividend and investment policies.

An understanding of the legal aspects of management problems is essential if the business executive is to proceed wisely and safely in formulating

and executing policy toward owners, customers, employees, and the public. Consideration is given, therefore, to basic legal concepts, principles governing legal responsibility for business transactions, unfair practices and restraint of trade, and fundamentals of public policy toward business.

Autumn, winter, and spring quarters (Dowrie, Jackson, Rathbun) By arrangement

Autumn, 38; winter, 37; spring, 30

Report Writing

The importance of using correct and effective English in all written reports is stressed. In order to bring about the use of better English, and to develop clarity and directness of expression, certain reports are examined and criticized from this point of view. Students whose construction or style is unsatisfactory are required to correct such deficiency during the first year.

SECOND-YEAR PROGRAM

Operating Problems of Management

The scope of the work in Operating Problems of Management is suggested by the following list of topics which are considered: present-day industrial tendencies, scientific management principles, simplification and standardization, plant location, plant layout, plant design and construction, plant engineering, production control, stores control, tool control, labor control, wage control, non-wage incentives, classification and symbolization, forms and reports, office management, purchasing, shipping and traffic, and co-ordinated executive control.

Industrial management is considered in generic terms. Particular emphasis is given to the universal application of the principles of scientific management and of the foregoing phases of the subject to banks, department stores, hotels, and other commercial enterprises. Attention is directed to the fact that these same principles and practices are adaptable to the small business as well as to large concerns. Constant endeavor is made to develop appreciation of the philosophy and the attitude of mind underlying scientific management. Forms, charts, formulas, and other mechanisms of scientific management are presented as tools useful in its functioning and not as its substance.

To summarize, the aims and purposes of this work may be said to be a thorough grounding in the scientific principles of management, a recognition of the uses and limitations of mechanisms and tools of management, an appreciation of the universal application of the principles and practices of scientific management, and an acceptance of the need for an orderly, logical, analytical, and systematic handling of business problems.

Autumn and winter quarters (Holden) By arrangement

Autumn, 26; winter, 24

Marketing Problems of Management

Marketing is the most complex of all the management activities, and the most diverse in its contacts with other human and business undertakings. It involves economics, geography, psychology, finance, accounting, and business forecasting as well as a wide range of physical and mathematical sciences. Successful marketing enterprises are those which have best taken into account the significance of these manifold human factors. In spite of their complexity, however, the tasks of marketing are the relatively simple ones of buying and selling at a profit.

Back of the marketing history of individual concerns lie definable principles, which, if once mastered, take from buying and selling much of the uncertainty and mystery with which they have been surrounded. Sales planning, sales management, sales-quota establishment, market-anticipation, the gauging of seasonal and secular trends in prices, and advertising, all contain many factors of tangible certainty. The recognition of these, and familiarization with their customary behavior, go far toward making the tasks of marketing comparable in definiteness with the other aspects of management.

The work in Marketing Problems of Management is designed to familiarize the student with the factors of which marketing problems are composed, and the forms which these problems commonly assume. Raw materials, equipment, and consumers' goods flow from production to consumption ceaselessly, and the mechanism for their transmission adjusts itself as best it may to changing conditions. The functions of merchandise distribution remain permanent, although they may vary in form. The purpose of the study of marketing problems is to discover those ways in which developed fields of scientific knowledge can help the individual business man adjust his management policies to the market conditions of his own time and place.

Autumn and winter quarters (SURFACE) By arrangement
Autumn, 25; winter, 25

BUSINESS POLICY

The growing complexity of modern business, even on a relatively small scale, has shown the essential unity of management problems, and the whole program of the School is designed to make clear the need for co-ordinating all fundamental activities of a business in terms of inclusive, consistent policy. During the last quarter in residence, therefore, a considerable portion of the student's time is devoted to unifying the chief results of previous study by considering problems of general policy which necessitate bringing different management factors within the scope of a unified policy. This work will be largely individual, under the problem method, and as far as practicable will be related to the work the individual student is doing in his specialized field of work.

Spring quarter (SCHOOL FACULTY) By arrangement
Spring, 25

SPECIALIZED WORK

Substantially one-third of the student's time during the second year is available for specialized work which involves the analysis of problems with which business men have to deal. This is the most advanced section of the Graduate School of Business curriculum. For carrying out this program of specialized work two alternative plans are offered.

The first plan permits the student to elect a field of study each quarter and to concentrate his attention on problems in that field under the immediate direction of the appropriate members of the faculty. Seminars for the discussion of these problems will be held.

The second plan permits the student to concentrate his efforts on a particular problem under the direction of one or more members of the faculty. Only those students who are especially interested in a suitable problem which, in the judgment of the faculty, can be undertaken to good advantage will be permitted to follow this plan. It is expected that this

study will be carried on by the student with a large degree of independence throughout the year. Individual conferences will be held from time to time.

In special cases, in order to meet the needs of individual students, a combination of the two plans may be permitted.

Autumn, winter, and spring quarters (SCHOOL FACULTY) By arrangement
Autumn, 25; winter, 25; spring, 26

PLAN ONE

During the autumn quarter students may specialize in Personnel or in Financial Management.

Problems in Personnel: The work in personnel will be concerned with the analysis of problems involved in building up business organizations and developing efficient relationships between the members of such organizations. Use will be made of the mechanisms of personnel control only to the extent that these are essential to the development and administration of personnel policies in the particular concerns studied.

Problems in Financial Management: The work in financial management will be directed toward developing a capacity to analyze management problems having to do with the financing of enterprises, issuing of securities, the making of investments, the handling of credits, and other problems in the field of finance.

During the winter quarter students may specialize in Accounting or in Business Forecasting.

Accounting: The work in accounting will consist of advanced problems in industrial accounting. The purpose will be to present a picture of the scope and variety of the problems which confront (*a*) the executive who desires to be well informed about his costs and accounting operations, (*b*) the accountant whose duty it is to supply that information.

Business Forecasting: The work in business forecasting will be directed toward developing a capacity to select the most significant data for the purpose of business forecasting, to work out the technique of manipulating such data so as to obviate erroneous conclusions, to indicate the extent and nature of the non-statistical information essential for guiding the forecaster, and to develop in general a critical attitude toward the sort of mass data upon which business forecasting is based.

During the spring quarter students may specialize in Distribution or in Management Control.

Advanced Problems in Distribution: The purpose of the work in distribution will be to give students an opportunity to study some of the important changes that are taking place in the field of distribution and the efforts that are being made to develop scientific methods of analysis corresponding to those that have been introduced in the field of production. The specialized work under this caption will be intended to carry students into more advanced and difficult problems of analysis than those which can be covered in the general work in marketing.

Special Problems in Management Control: The objective of the work in management control will be to study problems of control in particular business concerns in such a way as to develop the ability of the student to exercise a co-ordinating function in relating the problems in different divisions of the business to each other and to the major objectives to which the business as a whole is directed.

PLAN TWO

The following paragraphs, which are not intended to be exhaustive, will indicate the general character and range of subjects available for individual study:

Accounting: Advanced individual work in the principles and procedures of accounting is offered for those students who are interested in auditing and various accounting procedures from the standpoint of the practicing public accountant or in the numerous problems of accounting control as viewed by the treasurer, comptroller, or auditor in charge of the accounts of a commercial or industrial concern. The specific fields of accounting activity to be treated are determined largely by the needs of the students. Some of these major activities include auditing, with special emphasis on the balance sheet audit; investigations for refinancing, for the determination of profits, and for other purposes which are of primary importance to bankers and professional accountants; the devising and installation of cost and financial accounting systems; budgeting and organization for accounting control; and the preparation of statements and reports for stockholders, creditors, and the business executive. Actual problems from practice, setting forth the views of leaders in the profession, are made the basis for the year's work.

Finance: Advanced individual work in Finance may be concerned with some phase of one of the following fields: credit extension in banking, mercantile and industrial enterprises; commercial banking policies; international banking and exchange; investment analysis; the financial problems of various types of business undertaking—industrial, commercial, agricultural; investment banking policies; real estate finance; federal reserve policy; and the financing of organized speculation.

Industrial Management: The student who wishes to do advanced individual work in Industrial Management may center his attention on one or more of the important phases of the subject, such as production control, plant engineering, purchasing, or office management; he may concentrate on the various aspects of plant management in their specific application to some particular type of industry, e.g., food products, metal trades, clay products, wood-working, textiles, construction, and public utilities; or he may devote his efforts to an intensive study of some significant problem of factory operation as yet unexplored.

Marketing: Advanced individual work in this field may be elected by students who have shown ability to pursue individual study involving field work in connection with going business organizations. The full and friendly co-operation extended by business concerns, and the business connections established by members of the faculty furnish concrete problems for individual study by properly qualified second-year men. Suitable problems include such items as market surveys of Pacific Slope territories; the relations of Coast distributing concerns with manufacturers situated elsewhere; the stock planning and market control methods of wholesalers and retailers; the location problems of chain stores; the marketing methods for Pacific Coast raw materials; and the nature of advertising and sales management problems in this region.

Personnel: Advanced individual work in this field provides an opportunity for students to develop a comprehensive understanding of personnel policy, after surveying the activities usually grouped under the heading of

personnel work and considering the effect of various management policies upon human efficiency. The objective is not merely to handle labor effectively, but to develop optimum human relationships within the entire business organization and between it and customers and the general public.

[Subjects for specialization selected by students in recent years have been: The Bank of Italy and the Branch Banking Question; Industrial Management Survey of the Stanford Laundry; Personnel; The Advantage of Standardized versus Unstandardized Goods; The Building and Loan Movement in California; Survey of American Investment Trust Organization and Management; A Critical Study of the Possibilities of the Co-operative Marketing Movement as Applied to Territory Wools; Pacific Coast Outlets for California Fresh Fruits; The Chain Drug Store Development on the Pacific Coast; A Study of Chain Department Store Stock Planning Methods and Practice; A Critical Study of the Chain Store Movement from an Investment Standpoint; Foreign Trade Methods in the San Francisco Bay Region; The California Oil Industry of Today; Co-ordinated Executive Control; Control and Analysis of Sales Costs; Commercial Aviation.]

SCHOOL OF EDUCATION

Ellwood Patterson Cubberley, Dean
Dorothy Putnam, Secretary
Hazel Bernice Dillon, Assistant Secretary
Margaret S. Wells, Librarian

The School of Education is one of the professional schools of the University, first organized by the Trustees of the University in 1917, and further organized in 1927. It has control of matters relating to the professional preparation of teachers and school officers within the University, and of the offering of elementary and advanced courses in Education. The School is at present organized into four divisions, as follows:

I. The Division of Graphic Art
II. The Division of Education
III. The Division of Educational Psychology
IV. The Division of Teacher Training

All courses or programs of study offered as a Teaching-Major or a Teaching-Minor by any department or school of the University, or any grouping of courses from different departments or schools intended to prepare students for teaching, also lie within the control of the School of Education.

The members of the faculty of the School of Education are listed under the different divisions.

LINES OF WORK OFFERED

The School of Education offers eight main lines of work:

1. Courses for the preparation of teachers of drawing for the public schools, and for the general training of college students in artistic perception and graphic expression. (See Division of Graphic Art, page 219.) Students may enroll as prospective majors in this division, beginning with the freshman year.

2. Courses of a general nature on the history, theory, function, financing, and administration of public education, intended in part as information courses for the general university student and without reference to the work of teaching. Course 130 is recommended as the first course for such students, and Courses 133, 165, 175, 180, 190, and 251 are suggested as further courses.

3. Courses intended to assist other departments in preparing their students for certification to teach in schools in California. All such students should confer with the Secretary of the School of Education as to courses, but Course 130 is required for all forms of teaching certificates of all candidates without teaching experience, and Courses 133 (or 165) and 180 are also recommended, if the candidate has not had experience in teaching. Candidates with teaching experience may make certain substitutions, and should consult members of the department as to desirable courses to include. Course 195 is required of all candidates for the junior high school and for all forms of the secondary teacher's recommendation, under the regulations of the California State Board of Education, as are Courses 201 and 202, if the candidate has not had previous experience in teaching. Courses 201 and 202 also are required for all forms of California certificates. Teachers'

methods courses (204–224) are expected to be included when offered in the subjects which the student expects to be recommended to teach. (For a more detailed statement as to requirements for all types of California certificates, see the *Announcement of the School of Education.*)

4. An Upper Division course leading to the Bachelor's degree in Education (see page 223), and intended for those expecting to do further work in Education. Teachers of experience, and graduates of normal schools, teachers' colleges, and other teacher-training institutions, will be accepted as major students in Education when they have attained to at least junior standing. Others, lacking such experience or training, may be accepted as major students, each case being considered separately. For graduate work, experience in teaching is not a prerequisite.

5. Eight graduate curricula, each leading to the degree of Master of Arts in Education, and directed toward preparation for the following lines of professional service:

a) Secondary-school Teacher
b) Elementary-school Principal
c) Secondary-school Principal
d) School Supervisor
e) School Superintendent
f) School Counselor
g) Director of Research
h) Teacher of Education

(For an outline of each curriculum, see the *Announcement of the School of Education.*)

6. Advanced graduate work for major students who are candidates for the degree of Doctor of Education, and intended to give special preparation to: (*a*) those who desire to prepare for supervisory or administrative positions in the public schools, elementary or secondary, (*b*) those who desire to become teachers of Education in normal schools or colleges, and (*c*) those who desire to become master teachers in subject-matter lines in secondary schools, junior colleges, or colleges.

7. Advanced graduate work for major students in Education working either toward or without reference to the Doctorate, as well as for students in other departments or schools desirous of making Education a minor for the degree of Doctor of Philosophy, and intended to give special preparation to: (*a*) those who desire to prepare to direct research work in training schools and public school systems, and (*b*) those who desire to become teachers of Education in normal schools or colleges and prefer the Ph.D. degree.

8. Courses and research work, given in connection with the Division of Educational Psychology and the Department of Psychology, in the psychology and pedagogy of exceptional children. Two lines of work are offered in this field: (*a*) elementary courses designed to give prospective superintendents and principals a general acquaintance with the problems of special education, and (*b*) research courses for the advanced student who looks forward to work as clinical psychologist in the public schools or institutions for defectives or delinquents. The Dr. C. Annette Buckel Foundation, supplemented by additional support from the Board of Trustees of the University, has provided for a "research fellowship in the psychology and pedagogy of backward children." A "research fellowship

in the study of exceptional children" has also been provided. (See Department of Psychology.)

LIBRARY AND PRACTICAL FACILITIES

The general University Library contains the important recent books, files of the more important educational magazines, both American and foreign, and a collection of early American educational magazines and reports. The special library of the School, consisting of about 10,600 volumes, contains one of the most complete collections of American state and city school reports to be found in the United States, the library ranking probably third in this respect. It is also rich in old college and normal school catalogues and textbooks, of much historical value. The collection of old and present-day school textbooks is also large and valuable.

In practical facilities the School of Education has good working connections with the State Teachers College at San Jose, and with the public schools of the immediate vicinity. For more important studies by advanced students the large city school systems in the vicinity of the University can usually be made available.

The School also has good working connections with the Department of Psychology, by means of which laboratory facilities for research are fully available to all who need them.

DEGREES OFFERED

Courses leading to the degrees of Bachelor of Arts and Master of Arts are offered under Divisions I, II, and III of the School of Education, and the degrees of Doctor of Education and Doctor of Philosophy under Divisions II and III. For the requirements for each degree see statements given under the divisions, or the *Announcement of the School of Education* for a more detailed statement.

FELLOWSHIPS

In 1919 a Teaching Fellowship in School Administration was founded by joint action of the Board of Trustees and Professor Cubberley, and in 1924 a second fellowship of the same type was created by similar joint action. Each fellowship pays $500, and these are ordinarily awarded only to those who have taken the Master's degree and are ready to proceed to the Doctorate. The award is made in May of each year.

I. DIVISION OF GRAPHIC ART

Arthur Bridgman Clark, Professor and Executive Head
Chloe Lesley Starks, Associate Professor
Edward McNeil Farmer, Instructor

The work aims primarily to prepare students for positions as teachers of drawing and art in secondary schools. Many of the courses are also suitable for the practical and general cultural needs of students in other departments.

Intending teachers of art should register with the Division of Graphic Art as their major subject, and such may enroll as prospective majors in this division beginning with the freshman year.

REQUIREMENTS FOR DEGREES AND CERTIFICATES

Degree of Bachelor of Arts: Sixty units in Graphic Art. Intending teachers should also take enough work in Education, and in a teaching minor of some subject other than Graphic Art, to make possible the completion of the requirements for a high-school teacher's credential during one graduate year.

Intending Art majors should take 20 to 30 units of Art while in the Lower Division as preparation for graduation in four years.

Junior High School Certificate: Sixty units in Graphic Art, twenty-seven units in Education, and a teaching minor.

Special Certification, Fine Arts Type: Secondary and Junior College Grade, 75 units in Graphic Art and 22½ units in Education.

[See *Announcement of the School of Education* for requirements for all certificates. For the special lists of subjects required consult the secretary of the School of Education.]

Master's Degree, including Secondary Teacher's Certificate: One graduate year including the following: 26 units, including thesis, in Graphic Art; enough units in Education to make the required 27 units; completion of a teaching major or minor (in addition to the one in Graphic Art).

COURSES OF INSTRUCTION

1. Still-life and Quad Sketching.—Fundamental principles in blocking, proportion, and light and shade. Subjects, still-life and out-of-door drawings of parts of the arcades of the University. The drawings are large (20″×25″), and done with charcoal and colored crayon. The aim of the course is to give readiness and reasonable accuracy in representation. Open to all students.

3 to 5 units, autumn quarter (STARKS) MTWThF 1:05–4:05
Autumn, 10

2. Free-hand Constructive Drawing.—The development of a graphic vocabulary of objects, animals, and the human figure. Study is made of structure, action, three-dimensional form, foreshortening, and chiaroscuro. The practice is based on constructive methods to encourage drawing from memory and imagination and to stimulate observation when models are used. The course is designed to give purpose and power in graphic expression by giving the student sound theory and practice in graphic methods. Open to all students.

5 units, winter and *summer quarters (FARMER) MTWThF 10
Winter, 23; summer, 8

3. Design in Form and Color.—Great advance has been made in recent years in design, both in the development of rich color in surface decoration as applied to textiles and in interior decoration. To develop power in creative expression and color arrangement in prismatic as well as grayed colors, is the object of the course.

The work is done in tempera color with the brush directly, training in the most practical way habits of color analysis and clear thinking. A series of problems is given which begins with the color wheel and the simplest geometric form and leads on through easy steps to elaborate textile designs, rich wall decorations, and the general color design of interiors. This course is prerequisite to Textiles, and Advanced Design. Open to all students.

5 units, autumn, *spring, and *summer quarters (STARKS)
Lec. MTWThF 8; Lab. hours at student's convenience
Autumn, 11; spring, 8; summer, 4

4. Perspective.—A series of problems in form presentation; in part free-hand, in part drawn with instruments, and involving the various principles of perspective and shades and shadows. The latter part of the course involves drawings from actual buildings and placing figures in various distances and elevations. Open to all students and recommended as preparation to Course 5.

5 units, winter and *summer quarters (CLARK) (winter) MTWThF 11; (summer) MTWTh 10

Winter, 14; summer, 7

5. Art of House Design.—The course is a systematic study of the fundamental principles which underlie taste, convenience, and economy in house designing and furnishing. The principles and necessity of civic planning are also given brief consideration. The subject matter treated is of such universal interest and importance that the exercises assigned are kept well within the accomplishment of earnest students even though they may have had but little training in drawing. However, a great deal of drawing, both mechanical and free-hand, is required in the course as the most efficient means to the understanding of design in proportion, line, and surface, and sensitiveness to beauty of all kinds. The first half deals with types of exteriors and their design and plans; the second half with interior treatment, furniture, yard, and civic planning. A few trips of observation will be made in the suburban towns toward San Francisco. Previous experience in free-hand and perspective drawing will facilitate advancement in the course. Open to all students who have had one technical course such as 1, 2, 3, or 4, or the equivalent.

5 units, autumn quarter (CLARK) MTWThF 11

Autumn, 7

6. Lectures on Painters.—First half: The Renaissance from Giotto to Velasquez. Second half: The Nineteenth Century and Present Time. The course is conducted with the use of lantern slides, each student being furnished with a collection of prints selected from the University Prints Series, and blueprints prepared for this course. Open to all students.

5 units, autumn, *winter, and *summer quarters (CLARK) MTWThF 9

Autumn, 18; winter, 26; summer, 27

7. Landscape.—Working outdoors in pencil, charcoal, and colored crayons. The chief work of the class is bent toward large 20″×25″ drawings in color, one being made each day, thus developing power to think intently on the essential elements in design, of form, color value, and the selection of significant elements which make pictures. As a necessary accompaniment to the large drawings, each student carries a sketch book in which small notes of compositions are made. From discussions and selection of these the large subjects are chosen. Open to all students.

5 units, spring quarter (STARKS) MTWThF 1:05–4:05

Spring, 10

8. Free-hand Sketching.—Daily pencil sketching of objects, figures, and animals to develop graphic facility. Weekly conferences for instruction and criticism. For art majors.

1 unit, winter and *spring quarters (FARMER) Consultation hour by arrangement

Winter, 6; spring, 7

102. Advanced Free-hand Construction Drawing.—A course dealing with the subject matter of Course 2, for advanced students.

5 units, winter and *summer quarters (FARMER) MTWThF 10

Winter, 4; summer, 4

103. Advanced Color Design.—The continuation of Course 3.
5 units, autumn, *spring, and *summer quarters (STARKS) MTWThF 8
Autumn, 3; spring, 9; summer, 3

105. Advanced Course in Art of the House.—A more intensive study of house design, furniture design, and other furnishings than is possible in Course 5. Open to advanced students.
5 units, autumn and summer quarters (CLARK) MTWThF 11
Autumn, 2; summer, 8

106. Advanced Course in History of Painting.
5 units, autumn, *winter, and *summer quarters (CLARK) [Not given in 1929–30]

108. Advanced Free-hand Sketching.—Dealing with the subject matter of Course 8, for advanced students.
1 unit, summer quarter (FARMER) Consultation hour by arrangement
Summer, 5

109. Handicraft: Metal Work.—Making bowls, sconces, lamps, etc., in copper; simple articles of jewelry; napkin rings, brooches, rings, in silver. Including tool processes of saw piercing, raising and chasing metal, and of setting semi-precious stones.
5 units, winter quarter (CLARK) MTWThF 1:05–4:05
Winter, 11

110. Illustration.—Figure drawing and pictorial composition. The course aims to develop facility in strong, well-composed pictorial expression. Study is made of the relationship of compositional form to pictorial content and of the human figure as a subject of graphic expression. Drawing in charcoal and colored chalks. Prerequisite: Courses 1 and 2.
5 units, winter and *summer quarters (FARMER) MTWThF 1:05–4:05
Winter, 4; summer, 8

111. Posters and Lettering.—A study of Gothic, Roman, and modern letter styles and practice in executing them, both drafted and free-hand, with pen and brush. A study of poster composition with chief interest in effective line and color mass and the relation of compositional form to subject matter.
5 units, spring quarter (FARMER) MTWThF 1:05–4:05
Spring, 6

112. Handicrafts: Textiles.—The decoration of textiles in articles for personal use and interior decoration, block-printing, decoration of textiles by dyeing, embroidering, and batik. Open to all students who have had Course 3 or its equivalent.
5 units, summer quarter (STARKS) MTWThF 1:05–4:05
Summer, 8

115. Science Drawing.—A course designed to teach science majors the rudiments of drawing. It includes the drawing of simple scientific subjects in pen, outline, line and stipple shading, wash, line and wash. Especial attention is paid to the needs of individual students. Open to science and medical students on advice.
1 unit, autumn quarter (STARKS) MWF 9
Autumn, 8

116. Interior Decoration.—A short review of the history of interior architecture and decoration in Europe and America, with special reference to the cultural background of the times. A study is made of the development of the modern style in the domestic interior as an expression of modern thought and culture, and of the suitability of types of arrangement and decoration to modern social and esthetic needs.
5 units, spring quarter (FARMER) MTWThF 11
Spring, 29

200. Special and Seminar Courses.—Advanced work in connection with Courses 1 to 116, or special fields of study and survey, for graduate students in accordance with their individual purposes.

For students working for the Master's degree weekly conferences are held for direction of work and reports.

5 units, summer quarter (CLARK)
Summer, 8

206. Teachers' Course in Graphic Art.—For intending teachers of art; discussion of aims and methods of drawing and art instruction in the public schools. A study of the development of the artistic expression in the child in the fields of drawing, design, crafts, and art appreciation. Theory and practice in organization of courses of study for the elementary and secondary schools. Open only to Upper Division students.

3 units, summer quarter, first term (FARMER) MTWThF 9
Summer, 7

II. DIVISION OF EDUCATION

†ELLWOOD PATTERSON CUBBERLEY, Professor and Executive Head

JOHN CONRAD ALMACK, TRUMAN LEE KELLEY, WILLIAM MARTIN PROCTOR, JESSE BRUNDAGE SEARS, Professors

THOMAS WILLIAM MACQUARRIE (President, State Teachers College, San Jose), Acting Professor (Summer Quarter)

HAROLD R. BENJAMIN, PERCY ERWIN DAVIDSON, WALTER CROSBY EELLS, Associate Professors

WALTER LEWIS BACHRODT (Superintendent of City Schools, San Jose), Acting Associate Professor (Summer Quarter)

HARRISON FRENCH HEATH (State Teachers College, San Jose), GROVER CLEVELAND HOOKER (Millsaps College), Acting Assistant Professors

ARNOLD CLARENCE ARGO (Principal, Sequoia Union High School, Redwood City), ROSCOE DAVID CASE (Superintendent of City Schools, Brush, Colorado), ALICE CECILIA COOPER (Head of English Department, Modesto Junior College), JESSIE EDITH GIBSON (Dean of Women, Pomona College), ANDREW PUTNAM HILL, JR. (State Education Department, Sacramento), ALBERT RAY LANG (Head, Department of Education, Fresno State Teachers College), LEONA HADLEY MCCULLY (Palo Alto Union High School), Acting Assistant Professors (Summer Quarter)

HOBSON DEWEY ANDERSON, REGINALD BELL, Assistants in Educational Research

OSCAR ALBIN ANDERSON, FLOYD CLEVELAND WILCOX, Teaching Fellows in School Administration

ALICE PHILIPSON, VAAL STARK, Assistants in Girl Scout Work

REQUIREMENTS FOR DEGREES

Undergraduate Work.—Major students begin their work in Education with the junior year, and are expected to follow substantially the program of studies outlined below:

† Absent on leave, autumn, winter, and spring quarters, 1929–30.

Sophomore or Junior Year.—
Psychology 51. General Psychology (autumn, *winter, *summer) [5 units]

Junior Year.—Required courses, 13 units.
130. Introduction to Study of Education (autumn, *summer) 4 units
133. Principles of Education (winter) 5 units
190. Growth and Development of the Child (spring, *summer) 4 units

Senior Year.—Required courses, 9 units.
180. History of Education in America (autumn, *summer) 3 units
165. Educational Psychology (winter, *summer) 3 units
One of the following:
193. Principles of Elementary Education (summer)
195. Principles of Secondary Education (autumn, *spring, *summer) } 3 units

Total required courses in Education..... 22 units
Electives (any course in Division below 200)..... 13 units

Total undergraduate Education..... 35 units

It will be noted that in the above outline Practice Teaching and Methods Courses are not to be counted in the required 35 quarter units of Education.

In addition to the above, for graduation the student must also satisfy the requirements of two Teaching Minors in the School of Education and outside the department. In certain cases one teaching major will be accepted in place of the two teaching minors. If without at least one full year of experience in teaching, the student must also satisfy the Practice Teaching requirements.

Students coming with advanced or graduate standing from other universities may have substantially equivalent training accepted in lieu of the courses and the major and minor work required here.

First Graduate Year; A.M. Degree.—The requirements for the baccalaureate degree cover only introductions to Education, and those proposing to offer themselves for responsible positions in educational work will be expected to proceed at once to the Master's degree. For this at least forty-five units of advanced work and three quarters of residence will be required. Before becoming candidates for the degree of Master of Arts, students admitted to the Graduate Division from other colleges or universities are subject to such departmental adjustment as the Faculty of the School of Education may decide. The undergraduate requirements in Education and Psychology, listed above, must be met, though equivalent courses taken elsewhere may be accepted. Of the forty-five graduate units, at least thirty must be in courses in Education in advance of the baccalaureate requirements, with the presentation of a satisfactory thesis in addition. Courses passed with a grade of D will not be accepted as satisfying requirements.

Work listed below 175 is not included in counting requirements for the Master's degree, and ordinarily at least one-half of the thirty units in Education should be in work listed above 222. The candidate will also be expected to satisfy the requirements for one of the eight special curricula listed on page 218, each of which is based on the idea of preparing for some specific type of position. The candidate must choose a curriculum which offers work not covered in undergraduate standing. (For an outline of the requirements for each of these curricula, see *Announcement of the School of Education.*)

Candidates for the Master's degree must file an application, approved by the department, with the Registrar not later than the fourth week of the second quarter of study for the degree. A duplicate of this application should be checked and deposited in the office of the Secretary of the School of

Education. Subsequent changes in the programs outlined also must be petitioned for.

The completion of the first year of graduate study should mean a somewhat general acquaintance with the different fields of Education, together with the beginnings of specialization in some one or two of these. Those who desire to prepare properly for the type of positions indicated under 6, 7, or 8, page 218, should proceed to one of the two types of Doctorates offered.

Second Graduate Year.—By the end of the second year of graduate study the student will be expected to have attained a mastery of the literature and practice in three of the following divisions of the subject: (1) History and Principles of Education, (2) General Theory of Education, (3) Administration and Supervision of Education, (4) Educational Measurement and Statistics, (5) Educational Psychology, (6) Elementary Education, (7) Secondary Education.

Students intending to proceed to the degree of Doctor of Philosophy, either at once or later, may select one of these divisions as a major and one as a minor, and by the end of the second year of graduate study should also have completed in large part the required work in a second minor, outside of the department; should be able to satisfy the modern language requirements (German and French); should be well started on the dissertation; and should be ready for the University oral examination.

Similarly, students intending to proceed to the degree of Doctor of Education, either at once or later, must select three of the above divisions as the fields for specialization, designating one as the field of the thesis, and offer a consecutive program of study such as will insure a broad and systematic knowledge of Education. If a candidate for the Administrator type of this degree, the required outside Teaching-Major and Minor must be completed by the end of the second year of graduate study; if a candidate for the Master Teacher type of this degree, an outside minor subject, as in candidacy for the Ph.D. degree, will be required to be carried.

Any student may do two or more years of graduate work in Education, following the same courses as degree candidates, but without becoming a candidate for the Ed.D. or the Ph.D. degree. For a statement as to the conditions for candidacy for either of these degrees see the *Announcement of the School of Education.*

Requirements for a Ph.D. Minor.—Unless otherwise arranged, candidates for the Ph.D. degree in other departments or schools, who elect a minor in Education, will be expected, in addition to offering evidence of practical experience in teaching, or school administration, to complete 45 units of work in Education in courses numbered above 174 (half of the work should be in courses listed above 224), and ordinarily to offer such courses along not more than three of the divisions of the field of Education given above, under the heading *Second Graduate Year.*

Residence Work.—The University offers no correspondence or extension courses, does not accept such courses as counting toward advanced degrees, and requires that all work for degrees must be registered residence work.

Six-weeks-session work is not counted as part of the residence requirement for advanced degrees in Education.

A. INTRODUCTORY COURSES IN EDUCATION

110. Girl Scout Training Course.—A course designed to interest and provide preliminary instruction to any student wishing information on leisure

time programs for girls. The course is conducted using the Girl Scout troop organization plan and will include theory, as well as practical technique. Visits to Girl Scout troops and outdoor trips will be features of the course.
2 units, spring quarter (STARK) TTh 1:30–3
1½ units, *summer quarter, first term (PHILIPSON) TTh 1:30–3
Spring, 16; summer, 1

130. Introduction to the Study of Education.—A general introduction to the field of education, giving a preliminary survey of the theories and general principles, and a study of typical phases of the organization and administration of public education, with a view to presenting such a body of information relating to the work of our public schools as the citizen and the teacher ought to have, and at the same time making the course an introduction to the various fields of education. Lectures, following a text, with assigned readings and reports. This course is required of all candidates for any form of California Teacher's Recommendation, and of all major students if without experience in teaching.
4 units, autumn quarter (EELLS) MTThF 10
4 units, *summer quarter (HOOKER) MTThF 8
Autumn, 58; summer, 28

133. Principles of Education.—A study of the biological and psychological principles underlying modern education, in connection with the demands of modern society in a complex social, economic, and scientific world, with the view to the formulation of a working philosophy for the educational process. Class discussion, following the study of a text, supplemented by relevant statistical data.
5 units, winter quarter (DAVIDSON) MTWThF 10
Winter, 35

135. School Reform.—A study of the principles underlying the "progressive movement" in education, with an examination of the more conspicuous experimental schools.
5 units, summer quarter (DAVIDSON) MTWThF 11
Summer, 12

140. Intellectual Education and School Reform.—Superstition, credulity, and irrational belief; propaganda; educational practice and policies for the cultivation of reflective thinking; intellectual motivation; interests: their nature, origin, and growth; the relation of interests and abilities, etc. The outstanding examples of school reform are considered.
5 units, autumn quarter (DAVIDSON) MTWThF 10
Autumn, 7

142. Education and Character.—A study of the significance for education of the psychology of character. Growth and character; types and individual differences; principles of training; educative agencies.
5 units, winter quarter (DAVIDSON) MTWThF 11
Winter, 15

155. The California School System.—A study of the structure, organization, and administration of the California school system, as given in the School Law of the State, and as compared with procedure elsewhere. This course may be registered for only in connection with registration for Course 250. Intended only for candidates for the administration credential.
1 unit, summer quarter (CUBBERLEY) MTWTh 3
Summer, 3

165. Educational Psychology, Introductory.—A general elementary course with emphasis on the experimental bases of teaching methods. The learning process is analyzed with the aim of discovering the characteristics of effective instruction and economical study. Attention is also given to the

psychological aspects of disciplinary problems. Prerequisite: Psychology 51 or its equivalent.

3 units, winter quarter (BENJAMIN) MWF 8
3 units, *summer quarter (BENJAMIN) MWF 9
Winter, 63; summer, 38

172. Juvenile Problems in Education.—A study of the extent, causes, and prevention of juvenile delinquency, mental deficiency, and other social irregularities related to the work of the public schools and state institutions. Special attention is given to the recent juvenile research developments in California, and to the newer methods of dealing with exceptional children.

3 units (————) [Not given in 1929–30]

173. Psychology and Treatment of Exceptional Children.—A study of bright and dull children. Prerequisite: Psychology 51.

3 units, summer quarter (MERRILL) MWF 9
Summer, 20

174. Rural Education.—A study of the social and economic factors involved in the development of rural institutional life; how these explain the present status of the larger administrative and supervisory problems of rural education; and the principles and practical methods essential to the solution of these problems.

2 units (————) [Not given in 1929–30]

B. MORE-ADVANCED COURSES

175. Educational Sociology.—The nature and function of Educational Sociology, and the application of principles developed to specific school problems. The individual and the group, the development of social personality, the school as a social institution, the home and the community, the state and education, education and social control, culture and progress, democracy and education; and the relation of these to school organization and administration, the teaching service, curricula, discipline, guidance, method, and the objectives of the school.

5 units, autumn quarter (DAVIDSON) MTWThF 11
4 units, *summer quarter (LANG) MTThF 2
Autumn, 25; summer, 32

180. History of Education in America.—A study of the evolution of American educational ideals and practices, with special reference to the origin and development of those features of our present-day practices which are most characteristically American. Lectures, following a text, assigned readings, and the investigation of an assigned topic.

3 units, autumn quarter (ALMACK) MWF 9
4 units, *summer quarter (CUBBERLEY) MTWTh 4
Autumn, 32; summer, 71

182S. History of Education.—A study of the evolution of our educational traditions and practices, beginning with the Greek and Roman periods, with the chief emphasis placed on the foundations that underlie and the forces that have produced our Western civilization, and have resulted in the creation of modern and national school system. The chief emphasis is placed on origins and on the eighteenth- and nineteenth-century forces which have so profoundly modified life and education.

5 units (CUBBERLEY) [Not given in 1929–30]

184. Graphic Methods of Presenting Facts.—A course designed to give school officers a working knowledge of the best methods for the exhibition of statistical data in graphic form. Advantages of different forms of graphic presentation are considered. Emphasis is placed on acquiring skill in actual

construction of charts, graphs (both arithmetic and ratio), and statistical maps, either for publicity purposes or for illustration of articles and theses. No prerequisites, but knowledge of free-hand lettering desirable. A set of drawing instruments is necessary.

3 units, winter quarter (EELLS) TTh 9
Winter, 16

185. Elementary Statistical Methods.—A study is made of the various kinds of statistical series and the properties of each. The purpose of the first part of the course is to discover what constitutes the significant features of a body of data. Opportunity to obtain practice in the computation of the important constants of distributions is given; also in the use of calculating machines and other aids to computation. The approach is inductive, starting with measures and having as its object the discovery of the statistical resources which are available for making data reveal their story. Psychology 60 may be accepted instead of this course.

4 units, autumn and *summer quarters (EELLS) MTThF 8
Autumn, 59; summer, 57

186. Administration and Interpretation of Educational Tests and Measurements.—An introductory course dealing with the detailed problems of administration, interpretation, and use of Educational Tests and Scales. No previous experience in education or mental measurements or statistical methods is presupposed.

4 units, winter quarter (HOOKER) MTThF 10
4 units, *summer quarter (MACQUARRIE) MTThF 10
Winter, 30; summer, 49

190. Growth and Development of the Child.—A study of the mental and physical growth and development of the school child, with special emphasis on physical development and the physical basis of education, the general laws of growth, physical defects, educational hygiene, the health of the school child, and preventive mental hygiene.

4 units, spring quarter (ALMACK) MTThF 10
3 units, *summer quarter, first term (ALMACK) MTWThF 3
Spring, 47; summer, 61

193. Principles of Elementary Education.—The aim, work, function, and attainable goals of the elementary school as a part of the American system of education, and its specific problems in relation to the community and the other parts of the school system. An introductory course, intended for those without much acquaintance with elementary school work, and primarily designed to meet the State Board of Education requirement for the Elementary Certificate.

3 units, summer quarter (LANG) MTWThF 1
Summer, 12

195. Principles of Secondary Education.—A course dealing with the aims, purposes, and underlying principles of secondary education, intended for those preparing to teach in junior high and secondary schools, and required of all candidates for the California high-school recommendation. Detailed consideration is given to questions of relationship between the secondary and elementary schools and between secondary and collegiate education. The mental and physical characteristics of adolescence are also studied with especial reference to their implications for high-school organization and control. Open to seniors and graduate students only.

3 units, autumn and *spring quarters (BENJAMIN) MWF 8
3 units, *summer quarter, first term (MACQUARRIE) MTWThF 3
Autumn, 51; spring, 62; summer, 65

C. TEACHER-TRAINING COURSES

201–224. These numbers are reserved for courses under Teacher Training, Division IV of the School of Education, which see.

D. ADVANCED COURSES

227. Silent and Oral Reading.—This course deals with the underlying science of reading; objectives of reading instruction, and principles of classification and method; specific aims, materials, and methods by periods in the elementary and secondary schools; plans for developing effective reading and study habits in other subjects; measurement, diagnosis, and remedial instruction. A practical course for teachers, principals, supervisors, and superintendents.

3 units [Not given in 1929–30]

228. Investigations in Writing and Spelling.—This course consists of a review of significant scientific studies relating to writing and spelling with application to problems of materials and methods.

2 units [Not given in 1929–30]

229. Experimental Education.—This course is based upon the more important recent experiments relating to the elementary school subjects, methods of research are examined, and applications are made to teaching, supervision, curriculum construction, and research.

3 units, winter quarter (ALMACK) TTh 10
3 units, *summer quarter (ALMACK) MW 4
Winter, 18; summer, 39

230. High-School Administration.—Study of practical problems relating to the administration of a secondary school, such as organization, curricula, teaching staff, community relationships, part-time education, etc. A special problem is assigned for individual investigation by each student electing the course. Open only to seniors and graduate students who have had a minimum of fifteen units of work in Education, including Course 195, or who are teachers of satisfactory experience.

5 units, autumn quarter (PROCTOR) MTWThF 9
4 units, *summer quarter (ARGO) MTThF 10
Autumn, 22; summer, 42

231. The High-School Curriculum.—Principles of curriculum construction which underlie the efforts now being made to reorganize the secondary program of studies are considered in this course. Consideration is given to the experiments in curriculum building which have been carried out in Los Angeles, Berkeley, and Oakland, California, as well as the Denver, Detroit, and other plans. Prerequisites: senior or graduate standing, and Course 195 or equivalent.

5 units, spring quarter (PROCTOR) MTWThF 9
4 units, *summer quarter (PROCTOR) MTThF 9
Spring, 35; summer, 87

233. Student Activities in High Schools.—Student participation in school government, athletic associations, honor societies, glee clubs, social and scientific clubs, school publications, and such supplementary school agencies as Boy and Girl Scouts, Junior Chamber of Commerce, Hi-Y, and Junior Red Cross, are considered. The course should be of interest to high-school principals, vice-principals, and deans of boys and girls, as well as to high-school teachers preparing for the work of school counselors. Course 195, with some other work in Education, a prerequisite.

2 units, spring quarter (PROCTOR) TTh 1–2
4 units, *summer quarter (ARGO) MTThF 11
Spring, 29; summer, 72

234. Educational and Vocational Guidance.—The general principles of educational and vocational guidance are taken up during the first part of the quarter. The relation of guidance to the different phases of education work—social, civic, moral, aesthetic, and vocational—are considered. During the latter part of the quarter methods employed in counseling are investigated, and problems are assigned which require case studies and personal investigation of situations existing in nearby high schools. Prerequisites: Course 195 or equivalent, graduate standing, or teaching experience and senior standing.

5 units, winter quarter (PROCTOR) MTWThF 9
3 units, *summer quarter, first term (GIBSON) MTWThF 2
Winter, 36; summer, 64

236. Problems and Procedure for Deans and Advisers of Girls.—A course for experienced teachers, administrators, deans and advisers of girls, and for graduate students who expect to take up work as dean and adviser of girls. Course deals with duties of dean, such problems of advisership as health, educational and vocational guidance, recreation, morals and religion; case work, social activities, office equipment and technique, and community relationships.

3 units, summer quarter, first term (GIBSON) MTWThF 4
Summer, 20

237. Adult Education.—Seminar on development of agencies which provide educational opportunities for adults. Involves a study of the history, aims, and purposes of the agencies which provide educational opportunities for adults in America and Europe. The philosophy, methods of teaching, sources of support, and administration of adult education are investigated.

2 units, autumn quarter (PROCTOR) TTh 1
Autumn, 19

238. Secondary Education Problems.—A seminar course which involves a critical examination of the outstanding problems in the field of secondary education. Current literature is examined, and methods of research applicable to the solution of these problems are investigated. Oral and written reports on selected problems are required. Prerequisites: Courses 195 and 230, or equivalents.

2 units, winter quarter (PROCTOR) TTh 1
4 units, *summer quarter (PROCTOR) MTThF 1
Winter, 10; summer, 28

240. Advanced Statistical Methods, I.—This course is a continuation of 185, and deals primarily with series of related measures. The statistical methods of analysis of correlated data and the means of combining several measures into total scores are treated. Education 185, Psychology 60, or other equivalent course is a prerequisite.

4 units, winter and *summer quarters (KELLEY) MTThF 8
Winter, 19; summer, 11

241. Advanced Statistical Methods, II.—This is a continuation of Education 240. It deals especially with problems in multiple correlation and with the statistical treatment of known linear, skew, and categorical data. Education 240 is prerequisite. Course alternates with 315.

4 units, spring quarter (KELLEY) MTThF 8
Spring, 4

244. Interpretation and Construction of Mental and Educational Tests and Measurements.—This is a continuation of Course 186, dealing in the main with the interpretation of test scores in a diagnostic manner. Methods for the utilization of various measures in educational and vocational guidance programs are indicated. Some attention is given to the

methods of construction of educational tests. Courses 185, 186, and 189, or equivalents, are presupposed.
2 units, summer quarter (KELLEY) MF 10
Summer, 18

248. Education and Character: Advanced.—A continuation of Courses 140 and 142. Open to students who have had either of these courses, or the equivalent.
3 to 5 units (DAVIDSON) [Not given in 1929–30]

250. State School Administration.—A study of the educational principles underlying the proper administration of school systems in states and counties, and involving a comparative study of the school systems of the various American States. The course includes a study of such topics as federal and state policy, forms of control, scope of the school system maintained, revenue and apportionment, the state and the teacher, the state and the child, private and sectarian education, and state oversight and control. This course as stated carries four units. An additional unit of credit may be had by carrying a parallel study of the California School System, and by this means answering the state requirement of such a course for the administration credential.
4 units, summer quarter (CUBBERLEY) MTWTh 3
Summer, 65

251. City School Administration.—A study of the educational, financial, and administrative principles underlying the proper organization, administration, and supervision of school systems in cities, with a view to the establishment of principles of action. A thesis on some problem in city school organization or administration, or a survey of some city school system, required of each student.
4 units, spring quarter (HOOKER) MTThF 11
4 units, *summer quarter (BACHRODT) MTWTh 8
Spring, 28; summer, 69

254. The Principal and His School.—A practical course, dealing with the organization and administration of a single school, the organization and supervision of instruction, school extension, community relationships, etc. Thesis on some administrative problem required of each student.
4 units, autumn quarter (HOOKER) MTThF 11
4 units, *summer quarter (BACHRODT) MTThF 9
Autumn, 10; summer, 31

255. The Administrative Problems of the Teacher.—A course in which the teacher, or administrator with little or no experience, solves the problems with which the school administrator is confronted. The course is intended to give the teacher the administrative viewpoint, in the solving of problems in organization, administration, and supervision of public schools.
3 units, summer quarter (CASE) MWF 3
Summer, 10

256. Organization and Supervision of Instruction.—A study of the principles underlying the organization and supervision of classroom instruction, the art and technique of schoolroom supervision, the supervision of schoolroom instruction in the different school subjects, and means for improving teaching technique and the estimating of teaching efficiency. For present and prospective principals, superintendents, and special supervisors. Experience or special preliminary training a prerequisite.
4 units, summer quarter (HOOKER) MTThF 11
Summer, 48

257. The Platoon School.—A detailed study of the history, organization, administration, work, costs, advantages, and disadvantages of the platoon

type of organization. Comparison of the platoon system as used in various cities of the United States will be made.
3 units, summer quarter (CASE) MWF 4
Summer, 16

260. The Elementary School Curriculum.—A study of the principles underlying the organization of subject matter for courses in the elementary school, including a critical examination of curricula, syllabi, and school texts in the light of their function in the teaching and administration of the curriculum.
2 units, spring quarter (ALMACK) TTh 9
2 units, *summer quarter (ALMACK) TTh 4
Spring, 18; summer, 34

262. Organization and Supervision of Elementary Education.—A course dealing with the more important problems of organization, management, and supervision of the elementary school, including such topics as grade, departmental, group, and individual systems of class organization; typical promotion schemes; program making; time allotment; grades and marks; records and reports; attendance and retardation.
4 units, spring quarter (SEARS) MTWTh 2
Spring, 15

265. School Surveys and Educational Diagnosis.—A study of the literature relating to school surveys and to the methods and technique essential to the investigation of the major problems of the school administrator. How to organize and conduct a school survey, how to determine the lines of investigation needed, how to collect and interpret data, and how to set forth the results of the investigation in a report will be important features of the course.
4 units, winter quarter (SEARS) MTWTh 1
4 units, *summer quarter (HILL) MTThF 1
Winter, 25; summer, 27

267. Business Management of City School Systems.—A study of the organization and of the processes of managing the business affairs connected with the development, operation, and maintenance of physical properties, and with the financial accounting for city school systems.
4 units, spring quarter (SEARS) MTWTh 1
Spring, 11

268. Fundamentals of Management Applied to Education. — This course takes up the basic principles of management which are common to business and education and is concerned with the utilization of these principles in education. Major topics include: the economics of effective management, the basic functions of management, policies and policy-making, principles of organization, planning and planning methods, co-ordination and control, incentive as a psychological basis of control. These topics are considered from the viewpoint of both the central management and the rank and file as represented by the teacher in a school organization.
2 units, summer quarter, last four weeks (ANDERSON) MTWThF 1
Summer, 21

269. School Buildings and Building Programs.—A study of the fundamental problems involved in schoolhouse planning and construction, including standards of construction, unit cost, types of buildings, janitor service, and building surveys.
4 units, winter quarter (ALMACK) MTThF 9
4 units, *summer quarter (HILL) MTThF 2
Winter, 16; summer, 24

270. Public School Finance.—A course on the financing of public education in the United States dealing with the main problems of expenditures, the cost of schools, education as an economic burden, revenues and their control, indebtedness, budget-making, accounting, costing service, and financial reporting.

4 units, autumn quarter (SEARS) MTWTh 1

Autumn, 18

280. Current Problems in Public Education.—A seminar type study and discussion of current problems in the organization and administration of public education in cities.

2 units (CUBBERLEY) [Not given in 1929–30]

282. Comparative Education.—A study of foreign school systems with particular attention to recent changes in educational organization, support, control, objectives, and methods in Great Britain, France, Germany, Russia, Czechoslovakia, and the Orient. Prerequisite: senior or graduate standing.

3 units, winter and *summer quarters (BENJAMIN) MWF 8

Winter, 1; summer, 33

285. The Junior College.—A study of the development, organization, and administration of the Junior College. Attention will be directed to the functions of the public junior college and its place in educational reorganization. Designed for prospective junior college teachers and administrators. Graduate students only admitted.

4 units, winter quarter (EELLS) MTThF 8

4 units, *summer quarter (EELLS) MTThF 9

Winter, 25; summer, 38

290. Introduction to Thesis Work.—All students registering as candidates for the degree of Master of Arts are expected to spend one quarter in thesis training, where instruction in finding materials, bibliography, thesis organization, etc., is given, and the student guided to the selection and work on a problem.

1 unit, autumn quarter (ALMACK) W 10

1 unit, *summer quarter (ALMACK, BENJAMIN, EELLS) W 9, 10, 2

Autumn, 24; summer, 77 (4 groups)

295. Education Journal Club.—All graduate students in Education are expected to include registration in this course as a part of their graduate program. The course includes an acquaintance with magazine and monograph literature, European as well as American, with reports and discussion of the more important current material.

1 unit, autumn quarter (EELLS) T 7:30–10 P.M.

1 unit, *winter quarter (BENJAMIN) T 7:30–10 P.M.

Autumn, 24; winter, 11

300. Seminar in Principles of Research.—A seminar in scientific method and the underlying principles of research. A brief period will be given to forming an acquaintance with outstanding examples of the general literature of scientific method, to be followed by reports on original studies made by members of the class. Open to second-year graduate students, after consultation with the instructor, who desire to become candidates for the Ed.D. and Ph.D. degrees in Education.

4 units, autumn quarter (ALMACK) MTThF 10

Autumn, 7

301. Seminar in Social Problems.—Devoted to a study of problems in character study and character training, and to certain sociological aspects of public education. Theme for the quarter: School Reform. Open by permission.

3 to 5 units, summer quarter (DAVIDSON) WF 2–4

Summer, 13

302. Seminar on Elementary School Curriculum.
2 units (ALMACK) [Not given in 1929–30]

303. Seminar in Personnel Problems.—A course concerned with personnel problems of teachers associations, employment bureaus, teachers, principals, and superintendents; and, to a more limited degree, with higher educational institutions. Among the topics to be considered are selection of employees, preferred lists, classification and promotion, rating, tenure, salaries, participation in management, load, training in service, health, and retirement. Number in class limited.
2 units, winter quarter (ALMACK) T 7:30–10 P.M.
Winter, 16

305. Seminar in Public School Finance.—Open to students of administration who are equipped to carry on investigation within this field.
3 to 5 units, winter quarter (SEARS) MTWTh 2
Winter, 8

306. Seminar in Administrative Problems of City Superintendent.—A practical study of the administrative program in medium-sized city school systems. For advanced students who have had a general course in the principles of school administration (251) and supervisory experience. Special assignment to each student of a problem for individual investigation and term report.
2 units (CUBBERLEY) [Not given in 1929–30]

307. Seminar in Administrative Problems.—Emphasis will be placed during 1929–30 on the development and extension of the methods and technique of the school survey. The needs of state, county, and city school superintendents for norms, standards, and exact methods of investigation in their work will furnish the basis for the selection of individual problems.
4 units, autumn quarter (SEARS) MTWTh 2
Autumn, 7

310. Seminar in Supervision of Instruction.—Open to supervisors, principals, and superintendents, and to a small number of teachers looking forward to supervisory work. While the main emphasis is upon the development of techniques, some attention will be given to organization of the staff, the planning of the supervisory program, and the measurement of results of supervision. Number in class limited.
2 units, spring quarter (ALMACK) T 7:30–10 P.M.
Spring, 14

312. Seminar in Junior College Problems.—Open to students who have completed Course 285 and who desire to carry on special investigations of particular problems in the junior college field. Enrollment limited.
2 units, spring quarter (ELLS) Th 7:30–10 P.M.
Spring, 7

313. Seminar in the Improvement of College Teaching.—A study of such problems of college and university instruction as preparation of teachers, teaching load, class size, student reactions, measurement of instruction, honors courses, individual study. Emphasis on recent experimental work in this field.
3 units, spring and *summer quarters (ELLS) MWF 8
Spring, 13; summer, 12

325. Psychometry.—Essentially a research course. Attention is given to the analysis of mentality; to the measurement of interest; of special sensory capacity; and of certain specific habits and skills. The bearing upon problems of guidance is stressed. Education 240 and 244, or equivalents, are prerequisites. Course alternates with 241.
4 units (KELLEY) [Not given in 1929–30]

335. The Thesis for the Doctorate.—Students in Education or other departments working upon Ph.D. dissertations, and students in Education working upon Ed.D. dissertations, who desire assistance in connection with the definition and handling of their problems may enroll in this course, upon approval of the instructor. The work is individual and adapted to the student's special problems. Each student is called upon to make a report each quarter upon the progress of his investigation. This course is intended for the special help of Ph.D. or Ed.D. students in Education, or Ph.D. students in other departments, whose theses involve statistical procedure, and is not intended to take the place of registration for research work with individual professors. Education students should register for their thesis work under the instructors and courses listed below.

2 units, winter and *spring quarters (KELLEY, ALMACK) W 9–11
2 units, *summer quarter (KELLEY) TTh 10
Winter, 3; spring, 3; summer, 8

340–350. Special Thesis Courses.—In addition to the courses listed above, special work in independent investigation is provided for students prepared to do such advanced work, the nature of the investigation being determined by the student's preparation and needs. Permission to register for any of the following special courses, and the number of units of credit to be given, are subject to individual arrangement. In signing up for any one of the following courses, the proper number and name of instructor should be put on study cards. Meetings of the different groups are arranged for from time to time, usually in the evenings, for reports as to progress, discussion, and criticism.

The members of the instructing staff stand ready to supervise independent investigations in the following fields:

340. Problems in the history of education. (ALMACK, CUBBERLEY, SEARS)

341. Problems in the theory of education. (DAVIDSON)

342. Problems in the organization and administration of rural and county-unit education. (ALMACK, CUBBERLEY)

343. Problems in the organization and administration of elementary education. (ALMACK, SEARS)

344. Problems in the organization and administration of secondary education and vocational education and guidance. (BENJAMIN, PROCTOR)

345. Problems in state, county, and city school organization and administration. (ALMACK, CUBBERLEY, SEARS)

346. Problems in school finance and business management. (SEARS)

347. Problems relating to the school plant. (ALMACK)

348. Problems relating to educational tests, measurements, and statistical procedures. (EELLS, KELLEY)

349. Problems in intelligence testing and educational psychology. (MERRILL, TERMAN)

350. Problems in junior college administration. (EELLS, PROCTOR)

Courses 340-350 combined: Autumn, 63; winter, 31; spring, 77; summer, 120

III. DIVISION OF EDUCATIONAL PSYCHOLOGY

LEWIS MADISON TERMAN, Professor and Executive Head
JOHN CONRAD ALMACK, TRUMAN LEE KELLEY, CALVIN PERRY STONE, Professors
HAROLD R. BENJAMIN, WALTER CROSBY EELLS, Associate Professors
MAUD AMANDA MERRILL, Assistant Professor

This division includes the courses in educational psychology, mental testing, and closely related lines. Students working in this division may register under and receive degrees from either the School of Education or the Department of Psychology, the requirements for degrees being as stated under each of these headings.

COURSES OF INSTRUCTION

165. Educational Psychology, Introductory.—A general elementary course with emphasis on the experimental bases of teaching methods. The learning process is analyzed with the aim of discovering the characteristics of effective instruction and economical study. Attention is also given to the psychological aspects of disciplinary problems. Prerequisite: Psychology 51 or its equivalent.

3 units, winter quarter (BENJAMIN) MWF 8
3 units, summer quarter (BENJAMIN) MWF 9
Winter, 63; summer, 38

170. Mental Deficiency and Delinquency.—A study of mental retardation and its relation to delinquency. Mental traits of the feeble-minded; heredity; classification; psychological diagnosis. Prerequisite: Psychology 51.

3 units, spring quarter (MERRILL) MWF 9
Spring, 45

173. Psychology and Treatment of Exceptional Children.—A study of bright and dull children. Prerequisite: Psychology 51.

3 units, summer quarter (MERRILL) MWF 9
Summer, 20

188. Mental Tests.—An introductory course dealing with the principles and applications of intelligence tests and of methods of testing personality and character traits. Lectures and demonstrations. Prerequisite: Psychology 51. A course in statistical method must accompany or precede.

4 units, summer quarter (MERRILL) MTWTh 11
Summer, 19

189. Intelligence Tests.—An introductory course, dealing with the history and principles of mental measurement and with the technique of intelligence testing, with emphasis on Binet procedure. Prerequisites: Psychology 51, and either Psychology 60 or Education 185.

4 units, winter quarter (MERRILL) MTWTh 11
Winter, 24

225. Educational Psychology: Advanced.—Original endowment, mental development, individual differences in relation to heredity, sex, and environment; learning, formal discipline, work, and fatigue, with special reference to the school program. Independent study, discussions, and class reports. Prerequisites: Psychology 51, 55 or Education 165, and Psychology 60 or Education 185.

3 units, autumn, winter, and spring quarters (TERMAN) MWF 11
Autumn, 13; winter, 14; spring, 10

240. Advanced Statistical Methods, I.—This is a continuation of Course 185 and deals primarily with series of related measures. The statistical methods of analysis of correlated data and the means of combining several measures into total scores are treated, with particular application to educational and mental test data and problems. Education 185, or Psychology 60, is a prerequisite.
4 units, winter and *summer quarters (KELLEY) MTThF 8
Winter, 19; summer, 11

241. Advanced Statistical Methods, II.—This course is a continuation of Education 240. It deals especially with problems in multiple correlation and with the statistical treatment of known linear, skew, and categorical data. Education 240 is a prerequisite. Course alternates with 240.
4 units, spring quarter (KELLEY) MTThF 8
Spring, 7

244. Interpretation and Construction of Educational Tests and Measurements.—This is a continuation of Courses 186 and 187, dealing in the main with the interpretation of test scores in a diagnostic manner. Methods for the utilization of various measures in educational and vocational guidance programs are indicated. Some attention is given to the methods of construction of educational tests. Courses 185, 186, and 189, or equivalents are presupposed.
2 units, summer quarter (KELLEY) MF 10
Summer, 18

245. Mental Test Practice.—The selection and use of mental tests, with laboratory practice and field work. Important types of tests are subjected to experiment and critically evaluated. Prerequisites: Psychology 60, 188, or 189, and one laboratory course.
• 4 units, spring quarter (MERRILL) MTWTh 1:05–3:05
Spring, 12

300. Seminar in Principles of Research.—A seminar in scientific method and the underlying principles of research. A brief period is given to forming an acquaintance with outstanding examples of the general literature of scientific method, followed by reports on original studies made by members of the class. Open to second-year graduate students, after consultation with the instructor, who desire to become candidates for the Ed.D. and Ph.D. degrees in Education.
4 units, autumn quarter (ALMACK) MTThF 10
Autumn, 7

319. Seminar.—Research reports and current literature in educational psychology and mental tests. Registration by permission.
1 unit, autumn, winter, and spring quarters (TERMAN) W 7:30–10 P.M.
Autumn, 16; winter, 13; spring, 11

322. Mental Development.—Seminar and problem course. A critical survey of the most important studies of infancy, childhood, adolescence, and senescence. Intended primarily for major students in Psychology and Education who are in the second or third year of graduate work. Alternates with Course 323.
3 units, autumn, winter, and spring quarters (TERMAN) TTh 11
Autumn, 12; winter, 18; spring, 15

323. Psychology of Endowment.—A seminar and thesis course. Tests of general intelligence, special abilities, character and personality; the psychology of genius; mental inheritance; race differences, etc. Intended for same class of students, and alternates with 322.
2 units (TERMAN) [Not given in 1929–30]

324. Mental Test Problems.—For qualified students who wish to undertake an experimental problem of limited scope.
2 or 3 units, autumn, winter, and spring quarters (Terman, Merrill) By arrangement
Autumn, 2; winter, 2; spring, 3

325. Psychometry.—Essentially a research course. Attention is given to the analysis of mentality; to the measurement of interest; of special sensory capacity; and of certain specific habits and skills. The bearing upon problems of guidance is stressed. Education 240 and 244, or equivalents, are presupposed. Course alternates with 241.
4 units (Kelley) [Not given in 1929–30]

335. The Thesis for the Doctorate.—Students in Education or other departments working upon Ph.D. dissertations, and students in Education working upon Ed.D. dissertations, who desire assistance in connection with the definition and handling of their problems may enroll in this course, upon approval of the instructor. The work is individual and adapted to the student's special problems. Each student is called upon to make a report each quarter upon the progress of his investigation. This course is intended for the special help of Ph.D. or Ed.D. students in Education, or Ph.D. students in other departments whose theses involve statistical procedure, and is not intended to take the place of registration for research work with individual professors. Education students should register for their thesis work under Courses 340–50.
2 units, winter and *spring quarters (Kelley, Almack) W 9–11
2 units, *summer quarter (Kelley) TTh 10
Winter, 3; spring, 3; summer, 8

340. Research and Special.
(Department Faculty) By arrangement
Autumn 10 (5 groups); winter, 11 (5 groups); spring, 8 (5 groups)

IV. DIVISION OF TEACHER TRAINING

William Martin Proctor, Professor and Executive Head
Lee Emerson Bassett, Arthur Bridgman Clark, William Alpha Cooper, Ernest Whitney Martin, Everett Wallace Smith, Professors
Joseph Grant Brown, Walter Crosby Eells, Associate Professors
Harold R. Benjamin, Associate Professor, and Director of Practice Teaching
Sophia Cramer, Lina Jacob Guerrero, Leona Hadley McCully, Ruth Preston, Assistants in Instruction, Teachers' Methods Courses

The following Teachers' Courses are offered for the better preparation of prospective teachers in teaching technique, and a Teachers' Course should be added to each Teaching Major or Teaching Minor when offered in the subject or line of work in which the student is preparing. The maximum counting value toward the Education requirements for the High-School Teacher's Recommendation for all such courses, as provided by the rules of the California State Board of Education, is three units.

A. MANAGEMENT AND PRACTICE

201. Methods and Management of Instruction.—A practical course in the methods and management of secondary instruction. The various types of teaching are presented in lectures, discussions, class demonstrations, and observation of work in high schools. Particular attention is paid to the technique of project procedure, and to methods of individualizing instruction. This course is intended to be a preparation for practice teaching, and should be taken before Course 202.

2 units, autumn and *spring quarters (BENJAMIN) TTh 8

Autumn, 34; spring, 42

202. Practice Teaching.—Practice in the handling of classes and the giving of instruction, with accompanying conferences, six units of credit in such work being required of all inexperienced teachers, by the rules of the State Board of Education, for a California High-School Teacher's Recommendation. Those who desire to enroll for practice teaching should secure a blank form of application for a practice-teaching position from the Director of Practice Teaching, and fill out and file the same during the quarter preceding the one in which they desire to fulfill their practice-teaching requirement. Prospective cadet teachers should confer in advance with reference to undertaking this work. Conference with all practice teachers required each week. Prerequisites: six to ten units of work in Education, including Courses 195 and 201 for secondary school teaching, together with graduate standing. The teachers' courses in major and minor subjects (Courses 203–222) should be taken at approximately the same time. For good reason, with permission, seniors may be admitted to the work.

Students must register in Practice Teaching in the autumn and winter quarters, or in the winter and spring quarters, as the work covers a semester and must be carried through two quarters. New students are not accepted at the beginning of the spring quarter.

3 units, autumn, *winter, and *spring quarters (BENJAMIN) Conference M 4:05–5

Autumn, 29; winter, 64 (2 sections); spring, 50

B. TEACHERS' METHODS COURSES

These courses are intended for students preparing for credentials in the secondary schools, and are offered in connection with the practice-teaching work to students preparing in the teaching majors and minors, as described in the *Announcement of the School of Education.* These courses are required, if offered in connection with the major and minor subjects in which preparation is made, and are supposed to precede or parallel the practice teaching.

203. Teachers' Course in Biology. [Not given in 1929–30]

204. Teachers' Course in Chemistry. [Not given in 1929–30]

206. Teachers' Course in Graphic Art.—For intending teachers of art; discussion of aims and methods of drawing and art instruction in the public schools. A study of the development of the artistic expression in the child in the fields of drawing, design, crafts, and art appreciation. Theory and practice in organization of courses of study for the elementary and secondary schools. Open only to Upper Division students.

3 units, summer quarter, first term (FARMER) MTWThF 9

Summer, 7

207. Teachers' Course in Social Studies.—A study of the problems involved in the teaching of the social studies including history, citizenship, geography, economics, and social problems in the junior and senior high school. The course considers the scope and unity of this field; educational objectives; organization of subject-matter for teaching; and methods of classroom procedure.

3 units, summer quarter, first term (McCULLY) MTWThF 10
Summer, 31

208. Teachers' Course in English.

2 units, winter quarter (PRESTON) TTh 4
3 units, summer quarter, first term (COOPER) MTWThF 3
Winter, 25; summer, 31

209. Teachers' Course in French.

2 units, autumn quarter (CRAMER) TTh 4
Autumn, 9

210. Teachers' Course in Modern Languages.

3 units, summer quarter [Not given in 1929–30]

211. Teachers' Course in General Science.

[Not given in 1929–30]

[Teachers' Course in German.—See Germanic Languages 200.]

[Teachers' Course in Greek.—See Classical Literature A200.]

214. Teachers' Course in History.

2 units, autumn quarter (McCULLY) WF 3
Autumn, 30

215. Teachers' Course in Journalism.—A course for those preparing to become teachers of journalistic writing in secondary schools, and for those preparing to supervise student publications in such schools.

2 units, autumn and *spring quarters (SMITH) By arrangement
2 units, *summer quarter (SMITH) TTh 3
Autumn, 2; spring, 4; summer, 9

[Teachers' Course in Latin.—See Classical Literature B200.]

217. Teachers' Course in Public Speaking.—A course in problems and methods of teaching the several branches of oral expression in the secondary schools.

2 units, spring quarter (BASSETT) M 2–4
Spring, 15

219. Teachers' Course in Mathematics.

2 units, spring quarter (EELLS) TTh 4
3 units, *summer quarter, first term (HEATH) MTWThF 1
Spring, 16; summer, 15

220. Teachers' Course in Physical Education.

3 units [Not given in 1929–30]

[Teachers' Course in Physics.—See Physics 200.]

222. Teachers' Course in Spanish.

2 units, winter quarter (GUERRERO) WF 4
Winter, 6

223. Criticism and Supervision of Instruction.—A few advanced students, who have had sufficient teaching experience, are allowed to undertake the personal investigation, in the schools of the vicinity, of problems in instruction or supervision. Collateral reading and detailed written reports are required. Enrollment only after conference with the instructor concerned.

1 unit, autumn, *winter, and *spring quarters (PROCTOR) By arrangement
Autumn, 5; winter, 7; spring, 4

224. Modern Methods in High-School Teaching.—A course for principals, supervisors, experienced teachers, or prospective teachers who have had an elementary course in teaching methods and management. Reading, reports, discussion, and lectures on modern teaching methods, with a consideration of supervised or directed study, socialized methods, and problem-project teaching.

2 units, winter and *summer quarters (BENJAMIN) TTh 8
Winter, 18; summer, 35

C. COURSES FOR TEACHERS OF SPECIAL SUBJECTS

A number of special courses of instruction, and groupings of courses, designed to prepare teachers for special work in the public schools, have been arranged and are described in the *Announcement of the School of Education* (issued in June). These include courses designed to prepare manual arts teachers and teachers of home economics (in connection with one of the State Teachers Colleges), and teachers of the special high-school subjects.

SCHOOL OF ENGINEERING

THEODORE JESSE HOOVER, Dean
CHARLES MOSER, Secretary

The School of Engineering has been organized to include the existing engineering departments and such other engineering departments as may be hereafter established. The faculty of the School consists of the Dean and all members of the faculties of the component departments.

The School provides a four-year curriculum leading to the degree of Bachelor of Arts in Engineering, and two-year graduate curricula leading to the degree of Engineer.

The entrance requirements are those defined by the University for admission to the Lower Division. Entering students who plan to follow the undergraduate curriculum of the School of Engineering should be thoroughly prepared in elementary mathematics, with entrance credit in algebra (at least two units), plane geometry, and plane trigonometry, in order to take the first year's work in mathematics required of all engineering students. Furthermore, it is advisable for them to have entrance credit in mechanical drawing and in biological science.

The curriculum leading to the degree of Bachelor of Arts in Engineering is designed to give the student the broad fundamentals of an engineering education without specialization in any particular branch of engineering; it recognizes the fact that the same general fundamentals are used by all engineers in the solution of their problems. It is planned to include such studies as, together with the high-school and Lower Division preparation, will give the student a wide experience among the different departments of knowledge, to broaden his outlook, stimulate his interests, disclose the range of his aptitudes, and discover those lines of effort for which he is best fitted. This curriculum gives the student a certain number of options which he can use as he sees fit.

Students desiring to take up civil, electrical, mechanical, or mining engineering, as a profession, will register during the freshman and sophomore years in the Lower Division and complete the curriculum for these years as outlined on page 243. After completion of the Lower Division requirements such students will register in the School of Engineering during the junior and senior years and complete the curriculum as outlined on page 244. Upon satisfactory completion of this four-year curriculum there will be conferred the degree of Bachelor of Arts in Engineering.

During the first year the student in the School should give only "Engineering" as his probable choice of major interest. At every time of registration thereafter he should express his preference, if he has already formed a decision, as to the department in which to do his graduate work. For those students who express such a preference the elective units in the undergraduate curriculum should be largely devoted to undergraduate courses recommended by the department of his choice. It will be an advantage to the student to make a choice of the branch of engineering for his future graduate work before the beginning of his third year. If such choice is deferred beyond the beginning of his third year, it may lead to additional work during his graduate years, or at least to less thorough preparation in his chosen field.

FOUR-YEAR CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF ARTS IN ENGINEERING*

The curriculum for the degree of Bachelor of Arts in Engineering is as here set forth arranged as a four-year schedule. The sequence of courses shown in this schedule will be modified, so far as requirements of the Lower Division and prerequisites permit, to meet the needs of the individual student, and to balance the size of the various classes in any one subject. For example, all the Engineering Shops courses are given in the autumn, winter, and spring quarters. Any two courses may be chosen by the student, limited only by the capacity of the laboratories. Although shown in the schedule as being given in the autumn and spring quarters, sufficient registration is desired for the winter quarter to make operation of all three laboratories possible, and such necessary readjustment of schedule will usually be made when the student confers with his faculty adviser.

First Year, Total Units, 44

Subject	Course No.	Autumn	Winter	Spring
†Foreign Language		3	3	3
Linear Drawing and Lettering	C.E. 1, 2	..	1	1
Chemistry	Chem. 10, 11, 12	4	4	4
Co-ordinate Geometry	Math. 10, 11	3	3	..
Calculus	Math. 21	..	..	3
Citizenship	Citizenship 1–3	4	4	4
Total		14	15	15

Second Year, Total Units, 45

Subject	Course No.	Autumn	Winter	Spring
English Composition	Engl. 2a, 2b	3	..	3
Extemporaneous Speaking	Engl. 7	3	..	..
Calculus	Math. 22, 23	3	3	..
Heat and Electricity	Physics 13, 14	..	4	4
Descriptive Geometry	M.E. 10	4	..	..
Engineering Drawing	M.E. 11	..	4	..
Engineering Shops	M.E. 1, 2, 3	..	..	2
History		3	3	3
Surveying	C.E. 20	..	..	3
Total		16	14	15

* This schedule presupposes entrance credit in Mathematics sufficient to admit to Mathematics 10 (see page 394), two years of Foreign Language, Chemistry, Biological or General Science, and American (or other) History. If these entrance credits are not presented, certain adjustments must be made. These adjustments may delay graduation; but deficiency in Chemistry can be made up during the first year by taking Chemistry 1, 2, and 3; deficiency in one of the two units of Foreign Language can be made up by taking five instead of three units in each quarter of the first year, and a deficiency in one-half unit of Mathematics can be made up by taking an appropriate three-unit course in the first quarter of the first year, and starting Mathematics 10 in the second quarter, thereby adding three units to the schedule of the third quarter of the second year. Any student with more serious deficiencies in these subjects, and any deficiencies in Biological Science or History, should receive advice from the Registration Committee of the School of Engineering.

† If the foreign language requirement of the Lower Division has been completed, foreign language may be omitted from the first year, three units being devoted to the Group I requirement of the Lower Division and the remaining six units to other courses.

Third Year, Total Units, 46

Subject	Course No.	Autumn	Winter	Spring
Theoretical Mechanics	C.E. 99, 100	5	5	..
Hydraulics	C.E. 106	..	..	5
Engineering Geology	Geol. 1a	5	..	..
Electricity in Engineering	E.E. 102, 103	..	3	3
Engineering Shops	M.E. 1, 2, 3	2	..	..
Exposition	Engl. 131	..	3	..
*Electives		3	4	8
Total		15	15	16

Fourth Year, Total Units, 45

Subject	Course No.	Autumn	Winter	Spring
Mechanics of Materials	C.E. 110	5	..	..
Pyrometallurgy of Iron and Steel	Min. 105	..	3	..
Engineering Thermodynamics	M.E. 132	3	..	..
Heat-Power Laboratory	M.E. 122	..	2	..
Engineering Economics	C.E. 130	..	..	3
*Electives		7	10	12
Total		15	15	15

GROUP A

Bacteriology 100, 101, 102
Chemistry 20, 121, 123
Economics 4, 6, 119, 120
English: Public Speaking 8, 132
Geology 103, 121, 141, 142, 143, 160
Law 101, 102, 103
Mathematics 120, 125, 130, 131, 132, 161, 163, 164
Physics 100, 106, 110, 111
Philosophy 1, 7
Psychology 101
Zoology 102

GROUP B

Civil Engineering 101, 102, 103, 104, 105, 117, 125, 131, 138, 190, 191
Electrical Engineering 104, 124, 108, 109
Mechanical Engineering 1, 2, 3, 113 (4 units), 123, 133
Mining Engineering 101, 103, 108
Military Science 151, 152, 154, 156

After receiving the degree of Bachelor of Arts in Engineering, or an acceptable equivalent, a student is eligible for registration in the departments of Civil, Electrical, or Mechanical Engineering, or Mining Engineering, and, upon fulfilling the departmental requirements and completing ninety units (two years) of approved work, will receive the degree of Engineer in the elected department. The details of the two-year curriculum for the degree of Engineer will be prescribed by the faculty of the department concerned.

ELEMENTARY ENGINEERING

5. Survey of the Engineering Field.—A survey of the main activities of the engineering profession, designed to guide the student in the choice of his special field, and to outline and explain the curricula.

1 unit, autumn and *winter quarters (School of Engineering Faculty) Th 10
Autumn, 70; winter, 64

* Of the forty-four units of electives available in the third and fourth years, twenty-two are intended to provide for prerequisites to graduate work in the department of the student's choice and should be largely devoted to undergraduate courses recommended by that department. The remaining electives (twenty-two units) must be chosen from the following courses, not less than eight units from each group.

CIVIL ENGINEERING

Charles David Marx, Leander Miller Hoskins, Charles Benjamin Wing, Professors Emeritus

John Charles Lounsbury Fish, Halcott Cadwalader Moreno, Charles Moser, Leon Benedict Reynolds, Professors
Earl Charles Thomas, James Bertrand Wells, Associate Professors
Eugene Lodewick Grant, Acting Associate Professor (Autumn and Spring Quarters)
Walter William Wegner, Assistant Professor
Paul Jay Beard, Instructor

UNDERGRADUATE STUDY

Undergraduate students having the profession of Civil Engineering in view will pursue the curriculum leading to the degree of Bachelor of Arts in Engineering (see page 243), registering in the School of Engineering after completing the Lower Division requirements. The student is urged to consult with members of the Civil Engineering faculty when arranging his program of study for his third and fourth undergraduate years.

It will be greatly to the student's advantage to complete as many as possible of the subjects required of all students in this department in his undergraduate years. The following schedule illustrates an effective way in which both school and department requirements may be met:

THIRD YEAR

Course	Engineering School Group	Autumn	Winter	Spring
*C.E. 125 Advanced Surveying	B	3	..	..
*C.E. 126 Advanced Surveying	..	..	3	..
*C.E. 127 Engineering Surveys	..	..	..	3
*C.E. 105 Graphic Statics	B	..	1	..
*English	A	..	..	3
Restricted Electives	A	..	..	2
Total		3	4	8

FOURTH YEAR

Course	Engineering School Group	Autumn	Winter	Spring
*C.E. 190 Materials of Construction	B	3	..	..
*C.E. 191 Materials of Construction	B	2	..	..
*C.E. 192 Stress Analysis	..	..	3	..
*C.E. 193 Elements of Design	..	..	..	5
*C.E. 111 Mechanics of Materials	..	..	5	..
*C.E. 138 Specifications and Contracts	B	3	..	..
*C.E. 140 Highway Engineering	..	..	..	3
Restricted Electives	A	..	3	..
Restricted Electives	B	..	..	2
Total		8	11	10

The department does not schedule courses in the summer quarter but encourages the student to obtain employment on engineering projects during the summer vacations.

* Requirement for graduation in Civil Engineering Department.

GRADUATE STUDY

This department offers opportunities for graduate study in the following fields:

a) Structures
b) Hydraulics
c) Sanitation
d) Railroads
e) Highways
f) Engineering economics

Work may be done in connection with regular courses or as research independently of them. The facilities for work are here described.

The University has provided in the various fields of civil engineering the leading books and bound volumes of periodicals, the more useful of which are kept in the department's reading room in the engineering building.

The department's laboratories are equipped for investigating the properties of materials (including road materials) with respect to tension, compression, flexure, torsion, endurance, hardness, etc.; and for the investigation of flow in open or closed conduits, through orifices, over weirs, etc. The laboratories and equipment of the Departments of Biology, Bacteriology, and Chemistry are open to students doing advanced work on qualities and properties of water and sewage as related to problems of water purification and sewage treatment.

The University mechanician shop is available, so far as the department's funds permit, for the construction of special apparatus devised by the advanced student to facilitate his investigations.

Near the University there are engineering works of great variety, under construction or operation, which are open to observation and study by engineering classes. For example:

Engineering works for the collection, development, storage, and distribution of water for municipal, power, and irrigation uses are nowhere more extensive and varied than on the Pacific Coast. They provide exceptional opportunities for observation and investigation. Problems relating to the disposal of city sewage and industrial wastes (from canneries, milk plants, sugar factories, etc.) are particularly perplexing due to absence of streams with sufficient flow for dilution, high average temperature producing great bacterial activity, etc. Many of these problems are unsolved and the opportunity and need for research are unlimited. Municipal sewage treatment plants of several types are located within reasonable distance.

Graduate Standing: The requirements for graduate standing are fulfilled by graduates of colleges and universities of recognized rank. Admission to technical graduate standing does not imply admission to candidacy for an advanced degree. The requirements for admission to candidacy for the degree of Engineer in Civil Engineering are stated in paragraph "Engineer" under "Advanced Degrees" on pages 161–162.

Program of Study: The program of study of each graduate student must be planned in advance and approved by the department. Such program of study should be planned in collaboration with the professor whose field the student chooses for specialization. Regardless of the particular field of Civil Engineering which the student elects, the department recommends for the degree of Engineer only such students as have completed the following courses:

Graphic Statics (105)
Mechanics of Materials (111)
Surveying (125, 126, 127)
Specifications and Contracts (138)
Highway Engineering (140)
Structural Engineering (190, 191, 192, 193, 292)
Hydraulic Engineering (160)
Sanitary Engineering (170, 171)
English (three units in addition to School of Engineering requirement).

Typical programs of study in the several fields of Civil Engineering may be had on request.

ELEMENTARY ENGINEERING

1. Linear Drawing.—A training in the use of drafting instruments the purpose of which is to enable the student to construct accurate pencil drawings and make clean-cut ink lines. Required of all students in Engineering, in Engineering Chemistry, or Geology who have not received equivalent training in high school or elsewhere. Students who have entrance credit in mechanical drawing may not receive university credit for this course.

The instruments and equipment for this course cost from thirty to forty dollars. Students are cautioned against purchasing cheap, poorly made drawing instruments. Such instruments are not suitable for engineering drawing. A list of approved brands of drawing instruments will be found in the textbook *Linear Drawing and Lettering,* by J. C. L. Fish. Before purchasing instruments not so listed, the student should consult the instructor.

1 unit, winter quarter (THOMAS) W 1:05–4:05, or F 1:05–4:05
Winter, 43

2. Lettering.—A training in engineering lettering and title making. Open to all students, and required of all students in Engineering, in Engineering Chemistry, or in Geology, whether or not they have entrance credit in mechanical drawing. (This requirement is waived, however, for a student who satisfies the instructor that he has had the equivalent of this course by submitting certified work in lettering or by passing a special examination.)

1 unit, winter and *spring quarters (THOMAS) W 1:05–4:05, or F 1:05–4:05
Winter, 67; spring, 56

ENGINEERING MATHEMATICS

99. Theoretical Mechanics.—A course covering the fundamental principles of statics, kinematics, and kinetics, restricted mainly to coplanar forces and to plane motion of particles and of rigid bodies. The course is designed as preparation for Course 110, Mechanics of Materials. Prerequisites: Mathematics 10, 11, 21, and 22, and preferably Physics 13.

5 units, autumn and *spring quarters (GRANT, WEGNER)
(autumn) MTWThF 9; (spring) MTWThF 10
Autumn, 120; spring, 40

100. Theoretical Mechanics.—Continuation of Course 99.

5 units, winter quarter (MORENO) MTWThF 9
Winter, 118

101. Engineering Computation.—A study of numerical methods, approximate numbers and errors.

2 units, spring quarter (MORENO) MW 11
Spring, 20

102. Applications of Calculus.—A series of problems adapted to the needs of engineering students. Prerequisite: Grade B in Calculus.

3 units, spring quarter (MORENO) [Not given in 1929–30]

103. Engineering Diagrams.—Nomographs and the construction and use of certain types of engineering diagrams.
2 units, autumn quarter (MORENO) TTh 11
Autumn, 14

104. Nomographic Drawing.—A course in advanced drafting, supplementary to 103. Prerequisites: Courses 1 and 2.
1 or 2 units, autumn quarter (THOMAS) By arrangement
Autumn, 1

105. Graphic Statics.—A supplementary course to Civil Engineering 99, which may be taken in conjunction with it.
1 unit, winter quarter (WEGNER) F 11
Winter, 16

116. Empirical Equations.—Treats of empirical formulas, interpolation, and approximate methods.
3 units, spring quarter (MORENO) MWF 9
Spring, 48

117. Engineering Mathematics.—A prerequisite to Electrical Engineering 202. The course includes those parts of complex numbers, infinite series, hyperbolic functions, differential equations, and Fourier's series that are helpful in understanding the power line equations. Prerequisites: Mathematics 21, 22, 23, and some knowledge of alternating currents.
3 units, autumn quarter (MORENO) MWF 11
Autumn, 17

118. Differential Equations in Engineering.—In this course special attention is given to the setting up of the differential equation, the problems being drawn from various fields of engineering. Prerequisites: Grade B in Calculus and Mechanics.
3 units, spring quarter (MORENO) MWF 9
Spring, 18

218. Directed Reading.—Reading courses in advanced engineering mathematics may be arranged upon consultation with and approval of the instructor. Registration only by permission of the instructor.
1 or 2 units, autumn, *winter, and *spring quarters (MORENO)
[Not given in 1929–30]

MECHANICS OF ENGINEERING

10. Strength of Materials.—A course in materials with reference to their physical properties and methods of testing. Lectures and laboratory. The laboratory program is arranged to meet the needs of students in various fields. Open to all students of the University without prerequisites.
1 or 2 units, autumn, *winter, and *spring quarters (MOSER) TTh 8
Autumn, 4; winter, 4; spring, 1

106. Hydraulics.—Lectures and laboratory problems. Fluid pressure and equilibrium, flow of water through orifices, over weirs, in open and closed conduits. Laboratory: Calibration of instruments. Measurements of pressure, velocity, flow, friction loss, etc., under various conditions. Open to students who have completed Course 99.
5 units, spring quarter (MOSER)
Lec. MWF 9; Lab. MWF 10–12, or TTh 9–12, or MT 1:05–4:05
Spring, 126

[NOTE.—See also Hydraulic courses listed under Mechanical Engineering.]

110. Mechanics of Materials.—Lectures and laboratory problems. Strength and elastic properties of the ordinary materials of engineering construction. Simple tension, compression, and shear. Flexure, with application to simple,

continuous, and nonhomogeneous beams. Columns, torsion, repeated stress, sudden stress, resilience, etc. Testing strength and elastic properties of materials and structures. Open to students who have completed Courses 99 and 100.

5 units, autumn and *winter quarters (Moser) Lec. MWF 9; Lab. MWF 10–12, or TTh 9–12, or MT 1:05–4:05

Autumn, 115; winter, 5

111. Mechanics of Materials.—Continuation of Course 110 above.

5 units, winter and *spring quarters (Moser) Lec. MWF 9; Lab. MWF 10–12, or TTh 9–12

Winter, 19; spring, 1

212. Research.—Investigation of materials with respect to their physical properties and the methods employed in their utilization in engineering fields. Open by permission to advanced students.

2 or more units, spring quarter (Moser) By arrangement

Spring, 2

TOPOGRAPHIC ENGINEERING

20. Elementary Surveying.—Field: exercises in the care and use of instruments; traverse surveys; stadia surveys; leveling. Drafting Room: plotting and adjusting traverses; computing areas; plotting profiles; map drafting. Prerequisites: Civil Engineering 1 and 2, Mathematics C.

3 units, autumn, *winter, and *spring quarters (Wegner, Grant) Field and Dft. MTW 1:05–4:05, or WThF 1:05–4:05

Autumn, 55; winter, 20; spring, 41 (2 sections)

125. Advanced Surveying.—Adjustment of instruments; determination of azimuth; land surveying; base line measurement; triangulation; manipulation of the plane table. Prerequisite: Course 20.

3 units, autumn quarter (Wegner) Field and Dft. WThF 1:05–4:05

Autumn, 19

126. Advanced Surveying.—Topographic surveying; introduction to city, hydrographic, and photographic surveying; railroad and highway curves. Prerequisite: Course 20.

3 units, winter quarter (Wegner) Field and Dft. WThF 1:05–4:05

Winter, 10

127. Engineering Surveys.—The application of surveying to engineering problems. Reconnaissance, preliminary, location, construction, and maintenance surveys pertaining to railroads, highways, waterways, etc. Prerequisite: Course 126.

3 units, spring quarter (Thomas) Field and Dft. WThF 1:05–4:05

Spring, 9

228. Special Engineering Surveys.—Courses arranged to meet special needs of students who have completed Course 127 above, or have had considerable experience in engineering surveys. (Field work can be done only when two or more students elect to pursue the same work.) Open only by permission.

1 or more units (Wegner) [Not given in 1929–30]

[Practical Astronomy.—See Mathematics 161.]

[Adjustment of Observations.—See Mathematics 163.]

[Geodesy.—See Mathematics 164.]

ENGINEERING ECONOMICS

130. Elements of Engineering Economics.—An introduction to the business side of engineering. An analysis of economic factors of engineer-

ing practice: the engineer in the field of service, investment choice, estimating, business units, business statistics, valuation, depreciation, economics of service. (Text, written recitations, and problems.) Open to those who have 90 units of credit, and to others by permission.

3 units, spring quarter (GRANT) MWF 8

Spring, 114

131. Problems in Engineering Economics.—The chief purpose of this course is to afford practice in the steps of systematic investigation, from the framing and analysis of problem to the completion of final report. The student's work consists of independent investigation, from the owner's standpoint, of one or more problems within the field of engineering practice. The student may investigate a problem which has previously aroused his interest, or select from those suggested by the instructor. Oral progress report weekly. Prerequisite: Course 130.

1 or more units, autumn, *winter, and *spring quarters (FISH, GRANT) By arrangement

Autumn, 11; winter, 8; spring, 6

132. Statistics in Engineering.—Statistical technique as a tool for the engineer. Analysis of frequency distributions, applications in depreciation studies and in hydrographic studies. Sampling theory, applications in inspection of manufactured products and in interpretation of field and laboratory data. Correlation. Graphic presentation of statistics.

2 units, autumn quarter (GRANT) By arrangement

Autumn, 6

133. Accounting in Engineering.—A brief survey of accounting principles with emphasis on the interpretation of accounting statements in engineering.

2 units, spring quarter (GRANT) TTh 10

Spring, 12

138. Specifications and Contracts.—Development of contract principles; varieties of construction contracts; principles of specification writing; study of actual composition and arrangement of a set of specifications covering advertisement, instructions to bidders, proposal, contract, bond, and general clauses; preparation of contracts for engineering services. Lectures, collateral reading, and practice in actual writing of specifications. Open to fourth-year engineering students and to others by permission.

3 units, autumn and *winter quarters (REYNOLDS) MWF 11

Autumn, 16; winter, 3

232. Engineering Economics.—Independent study or investigation, from the owner's standpoint, of one or more comprehensive or advanced engineering problems in any field; with the co-operation of one or more instructors in the field in which the problem lies. Prerequisites: Civil Engineering 130, 131, and the approval of an instructor in the technical field in which the student's problems lies.

2 or more units, autumn and *winter quarters (FISH) By arrangement

Autumn, 2; winter, 2

233. Administration Thesis.—Investigation of an Engineering Economics problem within the field of Civil Engineering.

(FISH) [Not given in 1929–30]

HIGHWAY ENGINEERING

[Highway Surveying.—See Course 127 above.]

140. Highway Engineering.—An analysis of the major problems of highway engineering, including location, design, construction, maintenance, and

finance. Lectures, problems, and assigned reading. Open to engineering students who have 90 units of credit and to others by permission.
3 units, autumn and *spring quarters (THOMAS) MWF 9
Autumn, 4; spring, 13

141. Highway Construction.—A study of modern roads and pavements from the point of view of the resident engineer or inspector. Plans; specifications; estimates of cost; construction surveys; selection of materials; selection of equipment; methods of construction. Lectures, problems, inspection trips, and library research. Prerequisite: Course 140 above.
3 units, winter quarter (THOMAS) By arrangement
Winter, 3

241. Highway Problems.—Individual investigation. The student selects, investigates, and reports on one or more problems of highway engineering, conferring regularly with the instructor. Open to students who have completed or who are taking Course 140, and to others by permission.
1 or more units, spring quarter (THOMAS) By arrangement
Spring, 1

243. Highway Research and Thesis.—Original study of some problem in Highway Engineering.
Autumn, winter, and spring quarters (THOMAS) [Not given in 1929–30]

RAILROAD ENGINEERING

[Railroad Surveying.—See Course 127 above.]

145. Introduction to Railroad Engineering.—A general view of the work of converting into an operating railroad the first fruitful vision of such road; and a closer examination of one or more divisions of that work. Individual study and investigation, conferences, oral progress reports, and formal written final reports. Open to all except Lower Division students.
3 units, spring quarter (FISH) By arrangement
Spring, 1

245. Railroad Engineering.—Individual study or investigation, from the standpoint of the railroad company, of one or more topics or problems pertaining to one or more of the following divisions:

Construction: resident engineer's problems, from the point of view of the railroad or of the construction company, e.g.: situation surveys, preliminary plans and estimates, choice of site and type of special structure, working drawings, staking out, inspection, monthly and final estimates, recording and filing information, instructions, reports, selection of equipment and methods of construction.

Location: including topics and problems pertaining to: relation of location to income; inter-relation of train weight, grade, speed, and characteristics of the locomotive; effect of change in distance, curvature, rise and fall, and ruling grade on operating expense; pusher grades and balanced grades; improvements in line and grade.

Structures and facilities: e.g., yards, terminals, stations, signal systems, water supplies, and the accompanying structures.

Maintenance.

Reconnaissance: examination of country for feasible routes between two designated points, and selection of the most promising route.

At the weekly conference with the instructor the student makes oral progress report which serves as basis for discussion. Formal final report in

writing is required for each separate study or investigation undertaken. Prerequisites: Civil Engineering 127, 130, and 145.

1 or more units, autumn, winter, and spring quarters (Fish) [Not given in 1929–30]

246. Railroad Engineering Thesis.—Original investigation in the field of Railroad Engineering.

Autumn, winter, and spring quarters (Fish) [Not given in 1929–30]

HYDRAULIC ENGINEERING

160. Introduction to Hydraulic Engineering.—A general survey of the field of hydraulic engineering as applied to problems of power, irrigation, flood control, and public water supplies. General consideration of collection, storage, distribution, and purification of water. Lectures, collateral reading, inspection trips, problems. Prerequisite: Course 106.

5 units, autumn quarter (Reynolds) Lec. MWF 8; Dft. by arrangement

Autumn, 14

161. Storage and Distribution of Water.—A more detailed consideration of the problems of collection, storage, conveyance, and distribution of water. Rainfall, evaporation, runoff, stream gaging, dams, reservoirs, well supplies, conveyance structures, fire protection, city distribution systems. Prerequisite: Course 160.

5 units, winter quarter (Reynolds) Lec. MWF 10; Dft. by arrangement

Winter, 12

262. Protection and Purification of Water Supplies.—Quality of waters; physical, chemical, and bacteriological examination of water; relation of water supplies to disease; purification of water by aëration, sedimentation, coagulation, and filtration; water softening, deferrization, and sterilization. Lectures, collateral reading, inspection trips, and investigation of some source of municipal supply with report. Prerequisite: Course 161.

5 units, spring quarter (Reynolds) Lec. MWF 8; Dft. by arrangement

Spring, 13

265. Hydraulic Research and Thesis.—Original study of some problem of Hydraulic Engineering.

Winter and *spring quarters (Reynolds) By arrangement

Winter, 3; spring, 1

SANITARY ENGINEERING

170. Sewerage.—Quantity of domestic sewage and storm water; hydraulics of sewers; sewer surveys and investigations; design of sewers and appurtenances; pumping of sewage; estimates of quantities and costs; construction methods; supervision and inspection during construction; operation and maintenance. Recitations, collateral reading, and applications by means of problems. Prerequisite: Course 106.

3 units, winter quarter (Reynolds) MWF 8

Winter, 8

171. Sewer Design.—Actual design of a sewer system for some selected city, including preliminary investigations, maps, profiles, estimate of cost, report, etc. Prerequisite: Course 170.

2 or more units, spring quarter (Reynolds) By arrangement

Spring, 6

272. Sewage Disposal.—Characteristics of sewage; disposal by dilution; treatment by means of screens, sedimentation tanks, activated sludge, contact beds, sprinkling filters, sand filters, irrigation, and disinfection; location, design, operation, and maintenance of plants. Recitations, collateral reading,

inspection trips, and applications by means of problems. Prerequisite: Course 170.

3 units, spring quarter (REYNOLDS) MWF 10
Spring, 5

273. Sewage Disposal Design.—Actual design of a sewage disposal plant for some selected city, including preliminary investigations, layout, details, estimate of cost, report, etc. Prerequisite: Course 272.

2 or more units, autumn, *winter, and *spring quarters (REYNOLDS)
[Not given in 1929–30]

275. Sanitary Research and Thesis.—Original study of some problem of Sanitary Engineering.

Spring quarter (REYNOLDS) By arrangement
Spring, 1

The following courses offered by other departments are also important in the training of sanitary engineers:

[Sanitary Chemistry. Chemistry 136]

[Sanitary Bacteriology. Bacteriology 101]

[Sanitary Biology. Bacteriology 102]

[General Hygiene. Physical Education 150, 151]

[Individual Hygiene. Physical Education 152]

[Group Hygiene. Physical Education 153]

[Societal Hygiene. Physical Education 154]

[Insects and Disease. Zoölogy 102]

STRUCTURAL ENGINEERING

190. Materials of Construction.—A study of the common materials of construction; their production, adaptation, and maintenance. Wood, stone, brick, asphalt, lime, cement, and concrete are considered. Lectures and assigned reading. Open to engineering students who have 90 units of credit, and to others by permission.

3 units, autumn, *winter, and *spring quarters (THOMAS) MWF 11
Autumn, 18; winter, 21; spring, 15

191. Materials of Construction.—A laboratory course supplementing the work undertaken in Course 190. Students are required to make a series of experiments testing physical properties of the materials considered. Open to students who have taken or are taking Course 190.

2 units, autumn, *winter, and *spring quarters (THOMAS)
Two afternoons by arrangement
Autumn, 6; winter, 5; spring, 3

192. Stress Analysis.—Determination of stresses in simple framed structures such as roof trusses and highway bridges; stresses due to moving loads; distribution of stresses and pressure in retaining walls; stresses in tanks and stand pipes. Open to students who have taken or are taking Civil Engineering 110.

3 units, winter quarter (WELLS) Lec. Th 9; Dft. TW 1:05–4:05
Winter, 21

193. Elements of Design.—Detailed design of simple framed structures in timber and steel, together with bills of material and cost estimates of same; discussion of factors affecting design of details. Allowable unit stresses. Study of specifications for steel bridges, buildings, tanks, and a typical building code. Prerequisite: Course 192.

5 units, spring quarter (WELLS) Lec. TTh 9; Dft. MTW 1:05–4:05
Spring, 14

292. Reinforced Concrete Design.—Detailed design of retaining walls, girder bridges, culverts, walls and floors of buildings, and simple foundations. Discussion of specifications and application of reinforced concrete to construction; bills of materials and cost estimate for some of structures designed. Prerequisite: Courses 111, 190, 191, 193.

5 units, autumn quarter (WELLS) Lec. TTh 8; Dft. three afternoons by arrangement

Autumn, 9

293. Foundations.—Reading, seminar, and design; discussion of soil exploration, bearing tests and bearing power of soils, spread footings, pile foundations, coffer dams, open and pneumatic caissons. Special problems in design assigned. Prerequisite: Course 292.

4 units, winter quarter (WELLS) Lec. T 8; Dft. three afternoons by arrangement

Winter, 7

294. Masonry Arches.—Analysis of stresses in masonry arches and arch ribs; detailed design of arch bridge and abutments to fulfill actual requirements. Prerequisite: Course 293.

4 units, spring quarter (WELLS) By arrangement

Spring, 5

295. River and Harbor Structures.—Reading, seminar, and design; discussion of wharves, piers of timber and concrete, sea walls, and bulkhead walls. Factors affecting design and life of marine structures. Detailed design of some structure discussed to incorporate principles presented. Prerequisite: Courses 292 and 293.

4 units, autumn quarter (WELLS) By arrangement

Autumn, 1

296. Structural Engineering.—Investigation and research problems in design of structures.

(WELLS) By arrangement

Autumn, 1; winter, 2; spring, 2

Laboratory Fees.—Courses 20, 191, $4 each; 125, 126, 127, $3 each; 106, $2; 1, 2, 110, 111, 130, 138, 160, 170, $1 each.

ELECTRICAL ENGINEERING

HARRIS JOSEPH RYAN, Professor

JOSEPH SNYDER CARROLL, W. BRYAN DUNCAN, WARD B. KINDY, THEODORE HARDING MORGAN, FREDERICK EMMONS TERMAN, Assistant Professors

EZRA F. SCATTERGOOD, Lecturer on Hydroelectric Power

LEO G. GIANINI, Lecturer on Illumination

The department offers courses of instruction for three groups of engineering students:

I. General Group.—Courses 102 and 103, Electricity in Engineering, are offered especially for third-year students in engineering.

II. Dynamic Group.—Courses 104, 105, 106, 108, 109, 124, 125, and 126 are open to fourth-year students in engineering.

III. Advanced Electrotechnic Group.—Courses 200, 201, 202, 203, 210, 211, 220, 221, 222, 230, 240, 250, 280, 290, 300, Civil Engineering 117, and electives as approved.

Undergraduate students in the School of Engineering, who plan to enter the field of electrical engineering, should select courses listed under *II. Dynamic Group* as electives in the fourth year.

The department offers opportunity for graduate study in advanced theory, problems, and laboratory studies in the fundamentals of:

1. Design of machinery and equipment
2. Generation, transmission, distribution, and application of electric power
3. Transmission of intelligence by conduction or radio
4. Measurements and meters
5. Materials and products

Work may be done in connection with regular courses or as research independently of them. The facilities for work are here described.

The department maintains a measurements and standards laboratory wherein instruments are compared and calibrated in terms of the accepted international standards. It also maintains laboratories equipped and organized expressly for routine and research studies of fundamentals in electrical machinery, auxiliaries, communication, and high-voltage phenomena.

The Harris J. Ryan High-Voltage Laboratory has been established by the University with the co-operation of commercial organizations in the electrical manufacturing and power industries for the instruction of advanced students and for researches by students and faculty men alone, and in co-operation with engineers appointed for the purpose by the patrons of the Laboratory. The Laboratory is located on the University grounds, adjacent to the Campus. The instruction and work in the Laboratory are supervised by the personnel of the department. The equipment of the Laboratory includes six 350-kilowatt, 350,000-volt, 60-cycle transformers, arranged for all feasible connections in series or parallel as required for maximum voltage sources ranging from 350,000 to 2,000,000 volts, single-phase, and to 1,200,000 volts, three-phase, and for use in connection therewith six, 250,000-volt, crest, .0078 microfarad capacitors to constitute a 1,500,000-volt impulse voltage generator. It includes two synchronous motor-driven, sine wave, three-phase, 1,500-kilovolt-ampere generators, together with all controls and measuring facilities required for instruction and research. In addition to the main room where the 2,000,000-volt transformer set is located, the Laboratory includes rooms for the motor-generator sets, seminar, instruments, offices, and shop. The University has set aside 200 acres of land for accommodation of this Laboratory and the rights of way upon which to erect and study test specimens, conductors, and their insulating supports.

The High-Voltage Laboratory Research Fellowship.—Through an anonymous gift there is available in the Electrical Engineering Department of Stanford University for the academic year 1929–30 a fellowship carrying a stipend of $500, and designated by the authorities of the University the "High-Voltage Laboratory Research Fellowship."

The department promulgates high-voltage laboratory research in two categories:

I. Research undertakings as a department, in some or all of which the hearty co-operation of the holder of this fellowship will be desired.

II. Research undertakings with the approval, support, and guidance of the department to permit the definition and solution of a problem of particular interest to the individual student and of promise of helpfulness in education and practice.

Admission to Courses.—This department admits to its courses any student of the University who has an adequate preparation for the work.

Graduate Standing.—The requirements for graduate standing are fulfilled by graduates of colleges and universities of recognized rank. Admission to technical graduate standing does not imply admission to candidacy for an advanced degree. The requirements for admission to candidacy for the degree of Engineer in Electrical Engineering are stated on pages 161–162.

Program of Study.—The program of study of graduate students in this department must be planned in advance and approved by the department.

Advanced Degrees.—The departmental recommendation of candidacy for an advanced degree will be based on evidence of seriousness of purpose and capacity for independent investigation of engineering problems and the successful completion by the applicant of a curriculum equivalent to that leading to the degree of Bachelor of Arts in Engineering.

UPPER DIVISION COURSES

102. Electricity in Engineering.—A general course in the more important elements of electrical engineering with special emphasis on fundamental principles. The course will include a study of the theory of circuits; instruments and measurements; generation, distribution, and utilization of electrical energy; continuous and alternating current machinery; general practice, materials, safety and fire hazards. Prerequisites: first six quarters in engineering curriculum and Physics 14.

3 units, winter quarter (KINDY) Lec. TTh 8 or 11; Lab. T, W, or Th 1:05–4:05
Winter, 135

103. Electricity in Engineering.—Continuation of Course 102.

3 units, spring quarter (KINDY) Lec. TTh 8 or 11; Lab. T, W, or Th 1:05–4:05
Spring, 130

104. Fundamentals of Electric Circuits.—A course in fundamental principles of the electric and magnetic circuits, including simple alternating current circuits. Prerequisites: Courses 102 and 103 and registration in Course 124.

2 units, autumn quarter (KINDY) TTh 10
Autumn, 29

105. Alternating Current Circuits.—Principles of alternating current circuits, and their application in the determination of the performance of alternators and transformers. Prerequisites: Courses 104 and 124, and registration in Course 125.

2 units, winter quarter (MORGAN) TTh 10
Winter, 23

106. Alternating Current Circuits.—Continuation of Course 105, including a study of induction and synchronous machines and transmission lines. Prerequisites: Courses 105 and 125, and registration in Course 126.

3 units, spring quarter (MORGAN) MWF 11
Spring, 19

108. Illumination.—After discussing the place of artificial illumination in modern civilization—particularly showing the dependence of plant and office efficiency on proper lighting—the student will be furnished with a working knowledge of the principles of artificial illumination. The following applications will be discussed: shop, office, street, flood, and air-port lighting.

2 units, winter quarter (GIANINI) MF 10
Winter, 33

109. Illumination.—Continuation of Course 108, with specific applications of the fundamental principles. Lecture and laboratory.
2 units, spring quarter (GIANINI) Lec. T 11; Lab. by arrangement
Spring, 13

124. Direct Current Machinery Laboratory.—A study of the characteristic performance of direct current machines. To accompany Course 104. Prerequisite: registration in Course 104.
4 units, autumn quarter (KINDY, DUNCAN) M, W or F 1:05–4:05 or S 9–12
Preparation period by arrangement
Autumn, 28

125. Alternating Current Machinery Laboratory.—Alternating current circuits; performance of alternators, transformers, and induction motors; transformer polyphase connections. To accompany Course 105. Prerequisite: registration in Course 105.
4 units, winter quarter (DUNCAN) M or F 1:05–4:05, or S 9–12
Preparation period by arrangement
Winter, 23

126. Alternating Current Machinery Laboratory.—Characteristic performance of induction and synchronous machines, series motors, converters, and rectifiers. Prerequisite: registration in Course 106.
4 units, spring quarter (DUNCAN) M or F 1:05–4:05, or S 9–12
Preparation period by arrangement
Spring, 19

COURSES PRIMARILY FOR GRADUATES

200. Seminar.—A weekly conference for the discussion of current electrical engineering literature and special topics.
1 unit, autumn, winter, and spring quarters (RYAN) Th 11
Autumn, 16; winter, 18; spring, 25

201. The Electric Circuit.—A problem course in the relations involved between electromotive forces, currents, and energies in electric machines.
2 units, winter quarter (KINDY) MW 9
Winter, 16

202. Transmission Circuits.—The theory of circuits transmitting electrical energy, including power and telephone lines, transmission networks, and circle diagrams. Prerequisites: Civil Engineering 117 and Course 201.
4 units, winter quarter (TERMAN) TTh 10; Lab. by arrangement
Winter, 11

203. Transmission Circuits.—Continuation of Course 202, covering such topics as artificial lines, wave filters, electric waves, stability of transmission systems, etc.
4 units, spring quarter (TERMAN) TTh 10; Lab. by arrangement
Spring, 10

210. Power Circuits and Equipment.—A combined lecture and laboratory course in characteristic phenomena involved in the generation, transmission, distribution, and utilization of electric power.
5 units, autumn quarter (MORGAN) MWF 10; Lab. T or Th 1:05–4:05
Autumn, 11

211. Power Circuits and Equipment.—A continuation of Course 210.
5 units, winter quarter (MORGAN) By arrangement
Winter, 9

212. Power Circuits and Equipment.—A continuation of Course 211.
5 units, spring quarter (MORGAN) By arrangement
Spring, 5

214. Equipment Research.—Advanced electric circuits, machinery, meters, controls, materials.
(KINDY, MORGAN, TERMAN) [Not given in 1929–30]

220. Radio Communication.—The generation, radiation, reception, and amplification of high-frequency alternating current energy, and the properties of circuits at high frequencies. Prerequisites: Course 105.
4 units, autumn quarter (TERMAN) TTh 10; Lab. by arrangement
Autumn, 13

221. Radio Communication.—A continuation of Course 220.
4 units, winter quarter (TERMAN) MW 10; Lab. by arrangement
Winter, 10

222. Radio Communication.—Advanced course in radio phenomena.
3 units, spring quarter (TERMAN) By arrangement
Spring, 6

223. Radio Communication.—Recent developments in radio communication.
3 units, autumn quarter (TERMAN) [Not given in 1929–30]

225. Telephone Communication.—Recent developments in wire communication.
2 units, spring quarter (TERMAN) By arrangement
Spring, 5

230. Communication Research.
(TERMAN) By arrangement
Autumn, 3; winter, 1; spring, 1

240. High-Voltage Engineering Laboratory, Introductory.
5 units, autumn quarter (RYAN, CARROLL) By arrangement
Autumn, 11

241. High-Voltage Laboratory, Measurements.
5 units, winter quarter (RYAN, CARROLL) By arrangement
Winter, 1

242. High-Voltage Laboratory, Insulator Characteristics.
5 units, spring quarter (RYAN, CARROLL) By arrangement
Spring, 1

250. High-Voltage Engineering Research.—Elements in design, operation, and maintenance.
5 to 7 units, winter quarter (RYAN, CARROLL) By arrangement
Winter, 2

251. High-Voltage Engineering Laboratory.—Advanced study and research.
10 units, winter quarter (RYAN, CARROLL) [Not given in 1929–30]

252. High-Voltage Engineering Laboratory.—Continuation of Course 251.
10 units, spring quarter (RYAN, CARROLL) By arrangement
Spring, 2

260. Illumination Research.
(GIANINI) By arrangement
Autumn, 1; spring, 1

280. Electrical Engineering Professional Papers.
(FACULTY MEMBERS AS ASSIGNED) By arrangement
Autumn, 2; winter, 6; spring, 3

290. Research: Study of Engineering Data.
(FACULTY MEMBERS AS ASSIGNED) By arrangement
Autumn, 1; winter, 1; spring, 1

300. Thesis.
6 units (FACULTY MEMBERS AS ASSIGNED) By arrangement
Autumn, 1; winter, 4; spring, 3

The Stanford Branch of the American Institute of Electrical Engineers is an organization authorized by the Institute and maintained by the students for the discussion of the *Journal* of the Institute, and other topics.

Laboratory Fees.—$1 per unit of University credit.

Syllabus Fees.—Applicable to syllabus, lantern slides, and charts, 50c to $1 per course.

MECHANICAL ENGINEERING

William Frederick Durand, Professor Emeritus
Edward John Stanley, Assistant Professor Emeritus

Arthur Boquer Domonoske, Everett Parker Lesley, Guido Hugo Marx, Alfred Salem Niles, Elliott Gray Reid, Professors
Charles Norman Cross, Horatio Ward Stebbins, Associate Professors
Boynton Morris Green, Lydik Siegumfeldt Jacobsen, Assistant Professors
Robert Henry Harcourt, James Bennett Liggett, Theron Josiah Palmateer, Teaching Specialists
Albert Clarence Gullikson, Ulysses A. Patchett, Howard Story Taylor, Lawrence Washington, Instructors

After receiving the degree of Bachelor of Arts in Engineering, or an acceptable equivalent, a student is eligible for registration in the Department of Mechanical Engineering. Upon approval of the Department, School, and University Committee on Graduate Study, he will be accepted as a candidate for the Engineer's degree, and, upon fulfilling the department requirements and completing ninety units (two years) of approved work, including an acceptable thesis, will be recommended to the Committee on Graduate Study to receive the degree of Engineer.

In order to receive the recommendation of the Department for the degree of Engineer, the student's curriculum must have included the following courses: Mechanical Engineering 12, 2 units; 113, 6 units; 114, 8 units; 123, 3 units; 133, 4 units; and for those students specializing in Aëronautics the curriculum should have included also Mechanical Engineering 116, 6 units; 117, 3 units; Civil Engineering 192, 3 units; 193, 5 units; and Mathematics 131, 3 units. These should, as far as possible, be completed while the student is enrolled in the School of Engineering.

EQUIPMENT

The mechanical laboratory is equipped with various prime movers, compressors, blowers, and a refrigerating unit. A Sprague electric dynamometer, arranged for tests on automotive equipment, and various types of absorption and transmission dynamometers are available. Three types of boilers are installed, one of which has a superheater, economizer, and forced draft. Auxiliary apparatus of various types is arranged for testing. The instrument room contains a good collection of engineering and scientific instruments.

The hydraulic machinery laboratory is equipped with representative hydraulic machinery and appliances, which provide facilities for a wide range of research and experimental work in this field.

The Daniel Guggenheim Aëronautic Laboratory is equipped with a wind tunnel having a throat diameter of 8 feet, and a maximum air velocity of 90 miles an hour. Instruments and apparatus consisting of a propeller dynamometer, capable of testing model propellers 5 feet in diameter; a hanging wire type balance, suitable for making tests upon airfoils and complete airplane and dirigible models; pitot tubes; speed meters; altimeters, and the like, are available for making routine tests and for experimental research investigations.

New equipment in the engineering shops provides for graduate instruction and research in the melting, heat treatment, forming, and cutting of metals. Included in this apparatus are cupola, pit, and 125-pound-per-hour electric arc furnaces; electric and gas core ovens; experimental test lathe and grinders to generate standard tool forms; 150- and 300-ampere electric welders; 1,000-pound-per-hour forging furnace; 10- and 37-kilowatt electric carburizing furnaces; hump furnace; dilatometer; and various types of pyrometric control.

The services of the University mechanician shop are available through department appropriation, as are also the tools and apparatus of the late William Roberts Eckart, for the construction of special instruments and apparatus.

In the University Library may be found the leading technical periodicals and proceedings, and a well-chosen selection of the published books.

The income of the William Roberts Eckart Research Fund is available as an annual prize for the best thesis offered by a student in the department.

UNDERGRADUATE COURSES

[NOTE.—Laboratory sections in experimental engineering will be assigned in groups of three students. In so far as the laboratory schedule permits, students will be allowed, with due regard to priority of application, to arrange their own sections and laboratory periods. Enrollment, with the instructor concerned, on registration day or the first day of University instruction, is essential in order both that the laboratory schedule may be prepared and a lecture period selected to meet the requirements of the class as a whole. Enrollment later than the first week will not be permitted under any circumstances.]

1. Forge Practice.—Two laboratory periods per week. Required of Mechanical Engineering students.

2 units, autumn, *winter, and *spring quarters (HARCOURT) By arrangement
Autumn, 42; winter, 30; spring, 27

2. Foundry Practice.—Two laboratory periods per week. Required of Mechanical Engineering students.

2 units, autumn, *winter, and *spring quarters (LIGGETT)
Heats W 1–4; by arrangement
Autumn, 26; winter, 18; spring, 22

3. Machine Shop Practice.—Two laboratory periods per week. Required of Mechanical Engineering students. Prerequisites: Mechanical Engineering 1 or 2. Enrollment limited to number of machines available.

2 units, autumn, *winter, and *spring quarters (PALMATEER) By arrangement
Autumn, 23; winter, 26; spring, 25

4. Heat Treatment Practice.—Two laboratory periods per week. Study of apparatus used for heat treatment of metals.

2 units, autumn and *winter quarters (TAYLOR) By arrangement
Autumn, 7; winter, 10

10. Descriptive Geometry.—This course deals with the principles and methods used in determining the space relations of points, lines, planes, and curved surfaces and their combination in actual objects, without going into

details of shop and field notes, machine design, and topographic and geologic mapping, to which subjects it serves as a preliminary. Open to students who have completed or are taking Civil Engineering 1 and 2 or have had their equivalent. Required of students in Engineering. Enrollment limited to fifty students per quarter.

4 units, autumn, *winter, and *spring quarters (Green, Gullikson) Rec. TTh 11; Dft. MT or ThF 1:05–4:05

Autumn, 52; winter, 40; spring, 26

11. Engineering Drawing.—Practice in making free-hand sketches of actual machine parts and their dimensioning in practical form for use in the shop. About one-third of the time will be spent in making finished drawings and tracings from these sketches. Drafting conventions, the principles of orthographic projection, and of correct dimensioning will be taken up. The purpose of the course is not only to give training in the reading of machine drawings through the making of a number of dimensioned sketches but also to familiarize the student as much as possible with the elements of machines. Prerequisite: Mechanical Engineering 10. Required of students in Engineering. (Three 3-hour periods in the drafting room and one hour of lecture per week, any quarter.) Enrollment limited to fifty students per quarter.

4 units, autumn, *winter, and *spring quarters (Green, Gullikson) Rec. T 10; Dft. MTWThF 1:05–4:05

Autumn, 35; winter, 30; spring, 19

12. Machine Drawing.—Further practice in making working drawings and tracings from original dimensioned sketches. (Two 3-hour periods in the drafting room per week, any quarter.) Prerequisite: Mechanical Engineering 11 and the sketches from that course. Required of Mechanical Engineering students.

2 units, autumn, *winter, and *spring quarters (Green, Gullikson) Dft. MTWThF 1:05–4:05

Autumn, 8; winter, 7; spring, 2

101. Advanced Forge Laboratory.—Special work for students who have completed Mechanical Engineering 1.

2 units, autumn, winter, and spring quarters (Harcourt) By arrangement

Autumn, 4; winter, 6; spring, 10

102. Advanced Foundry Laboratory.—Special work for students who have completed Mechanical Engineering 2.

2 units, winter and spring quarters (Liggett) By arrangement

Winter, 3; spring, 1

103. Advanced Machine Shop.—Special work for students who have completed Mechanical Engineering 3.

2 units, autumn, winter, and spring quarters (Palmateer) By arrangement

Autumn, 3; winter, 1; spring, 3

112. Advanced Engineering Drawing.—Advanced work in mechanical graphics covering problems in descriptive geometry, drafting technique, and mechanical drawing. Prerequisites: Mechanical Engineering 10, 11, and 12.

2 to 4 units, autumn and spring quarters (Green) By arrangement

Autumn, 1; spring, 1

113. Elementary Machine Design.

a) Function of machines; motion, force, and work in machines; analysis of mechanism; velocity, acceleration, and effort diagrams; parallel motions; cams; ratchets; toothed wheels. The aim is not merely to present a course in pure mechanism, or kinematics, but also—by the introduction of the consideration of force, work, and energy, as well as motion—to show the

purposes for which the mechanisms are used and the manner in which they function.

3 units, winter quarter (MARX) — Lec. MWF 10
1 unit, spring quarter (MARX) — Lec. M 8
Winter, 35; spring, 25

b) Drafting course applying the principles treated in *a*. (Three hours a week drafting, winter and spring quarters.) Prerequisites: Mechanical Engineering 10, 11, and Civil Engineering 1, 2. Courses *a* and *b* must be taken together and are required of students in Mechanical Engineering.

1 unit, winter and spring quarters (GREEN) — Dft. W 1:05–4:05
Winter, 35; spring, 24

114. Machine Design.—Study of machine elements, such as bolts and screws; riveted joints, welded joints, and pressure vessels; keys, fits and fitting; axles, shafts, and spindles; journals, bearings, friction, and lubrication; ball and roller bearings; sliding surfaces; couplings and clutches; gear, belt, rope, and chain transmission systems; flywheels; brakes; springs; frames and supports; cylinders, etc.; leading to the design of complete simple machines. (Two hours a week recitations and lectures, six hours in the drafting-room, throughout the year.) Open to students who have completed Mechanical Engineering 113, Mining Engineering 105, and Civil Engineering 110; two quarters required of students in Mechanical Engineering.

4 units, autumn, winter, and spring quarters (MARX)
Lec. TTh 8; Dft. TTh 1:05–4:05
Autumn, 8; winter, 15; spring, 7

115. Valve Gears.—Steam and gas-engine valve-gear analysis and design. Bilgram, Zeuner, Reuleaux, harmonic, etc., diagrams. Plain, automatic, independent cut-off, Corliss, poppet, and locomotive valve gears.

2 units, spring quarter (MARX) — Lec. WF 8
Spring, 7

116. Dynamics of Machinery.—Thorough drill in engineering applications of d'Alembert's principle. Practice in considering the simpler problems of mechanical engineering from the point of view of differential equations with emphasis on the physical interpretation of the results. A study of forces in machines and their analytical representation by Fourier's series. Vibration problems of one and of several degrees of freedom will be studied in detail. Graphical methods of determining lowest natural period of vibration of a complicated mechanical system. Prerequisite: Civil Engineering 100.

3 units, autumn and winter quarters (JACOBSEN) — By arrangement
Autumn, 19; winter, 7

117. Applications of Theory of Elasticity.—A study of the results obtained by the theory of elasticity rather than a study of the theory itself. Tension and compression from the point of view of non-uniform stress distributions. Graphical methods of solving the flexural problem in general. The beam on the elastic foundation with its many applications to problems of mechanical engineering. Curved beams solved by the theorem of least work. Torsion of bars of any cross section. Dynamic stresses with theories of fatigue of materials. Prerequisite: Civil Engineering 110.

3 units, spring quarter (JACOBSEN) — By arrangement
Spring, 16

122. Heat Power Laboratory.—An elementary course covering the methods and instruments used in the testing of steam and internal combustion engines, hydraulic motors, dynamometers, absorption brakes, fluid meters, and similar apparatus. (Seven experiments each requiring three hours in laboratory and

about six hours on reports.) Prerequisite: Mechanical Engineering 132 completed or taken concurrently.

2 units, autumn and *winter quarters (PATCHETT, WASHINGTON) Lab. WThF 1:05–4:05

Autumn, 52; winter, 60

123. Heat Power Laboratory.—Continuation of Mechanical Engineering 122. Includes the testing of steam turbines, boilers, air compressors, fans, and internal combustion engines. (Seven experiments each requiring three hours in the laboratory and about ten hours on reports.) Prerequisite: Mechanical Engineering 122.

3 units, winter and *spring quarters (PATCHETT, WASHINGTON) Lab. 1:05–4:05 by arrangement

Winter, 6; spring, 16

124. Heat Power Laboratory.—A continuation of Mechanical Engineering 123. Includes tests on hydraulic machines, heat engines, and power plant auxiliaries. (Seven experiments each requiring three hours in laboratory and about six hours on reports.) Prerequisite: Mechanical Engineering 123. Will not be given unless at least four students register.

3 units, autumn quarter (PATCHETT, WASHINGTON) [Not given in 1929–30]

132. Elementary Engineering Thermodynamics.—Introductory course in the application of the mechanical theory of heat to the generation of power. (Three lectures per week.) Prerequisites: Mathematics 23 and Physics 13. Required of students in Engineering.

3 units, autumn quarter (STEBBINS) Lec. MWF 10

Autumn, 126

133. Heat Engines.—Study of the principles, characteristics, and economic performance of the various thermal motors. (Three lectures per week.) Prerequisite: Mechanical Engineering 132. Required of students in Mechanical Engineering.

4 units, winter quarter (STEBBINS) Lec. MWF 10; problem work as arranged

Winter, 44

COURSES PRIMARILY FOR GRADUATES

200. Industrial Processes.—Laboratory practice in selected shop processes, carried on with the co-operation of the Department of Mining Engineering. Forging, melting, and machining operations will be studied with reference to the chemical and physical properties of the metal and the financial requirements. Prerequisites: Mining Engineering 105 and sufficient familiarity with equipment to carry on work independently.

3 to 5 units, autumn, winter, and spring quarters (TAYLOR, CROOK, and SHOP SPECIALISTS) By arrangement

Autumn, 1; winter, 1; spring, 6

210. Shop Administration.—A course of lectures on workshop organization and administration, factory accounting, wage systems, selection of machinery, factory methods, etc. Prerequisites: Shopwork, Courses 1 to 3 inclusive.

4 units, winter quarter (DOMONOSKE) By arrangement

Winter, 7

MACHINE DESIGN

215. Dynamics of Machinery and Fluid Motion.—A study of the potential and of force fields in general. Lagrange's equations with emphasis on engineering applications. Hamilton's variational principle. Euler's equations of rotation with applications to gyroscopic motions and engine govern-

ing. A study of fluid motion from a vector point of view. Laplace's continuity equation. Streamline motion with sources and sinks. Vortex motion. Bernoulli's and Euler's works with practical applications. Vibrations of fluids. The generalization of fluid motion as applied to heat flow and to electromagnetism. Prerequisites: Civil Engineering 117 and Mechanical Engineering 116.

3 units, autumn and winter quarters (JACOBSEN) By arrangement
Autumn, 3; winter, 2

216. Advanced Machine Design.—Design of complete machines. Students may elect machine tools, cranes, steam or gas engines, or special problems. (One lecture and nine hours drafting per week.) Intended for students who have completed Mechanical Engineering 114, 132, and 133.

4 units, autumn quarter (MARX, GREEN, JACOBSEN)
Lec. F 10; Dft. 1:05–4:05 by arrangement
Autumn, 3

217. Theory of Elasticity.—An elementary study of the theory of elasticity from the formal point of view. Theories of combined stresses and theories of failure of material. The two-dimensional problem which is susceptible of experimental solution by polarized light analysis is gone into. Other problems of interest to the individual student are considered.

3 units, spring quarter (JACOBSEN) [Not given in 1929–30]

218. Automotive Construction.—The application of the principles of engineering mechanics to the field of automotive transportation. First quarter largely devoted to automobile and aero engines. Prerequisites: Civil Engineering 99, 100, 110, and Mechanical Engineering 132, 133.

3 units, autumn and spring quarters (DOMONOSKE) By arrangement
Autumn, 10; spring, 9

EXPERIMENTAL ENGINEERING

230. Experimental Investigation of Mechanical Engineering Problems.—Open to all students who have completed Mechanical Engineering 122, 123, Mining Engineering 108, and whose work has indicated their ability to carry on successfully advanced work of this nature. (A complete report of all work must be prepared for the laboratory files.)

3 to 6 units, winter and *spring quarters (PATCHETT, WASHINGTON)
By arrangement
Winter, 2; spring, 2

POWER PLANT ENGINEERING

231. Heat Transmission.—A study of the mathematical and empirical theory of conduction, convection, and radiation, and a consideration of the laws of fluid flow as applied to engineering heat-transmission problems. The course includes a discussion of temperature measurement and apparatus for determining heat-transfer constants. Individual problems involving heat transfer will be assigned.

3 units, spring quarter (WASHINGTON) By arrangement
Spring, 4

232. Internal Combustion Engines.—Thermodynamics, structural and operating characteristics, and performance results of the different forms of internal combustion engines. Prerequisites: Mechanical Engineering 122 and 132. (To be given in alternate years beginning in 1929–30.)

3 units, autumn quarter (CROSS) Lec. MWF 9; problems as arranged
Autumn, 3

233. Steam Turbines.—Thermodynamics, structure, steam rates, operating characteristics, and performance results. Prerequisites: Mechanical Engineering 122 and 132. (To be given in alternate years beginning 1930–31.)
3 units, autumn quarter (Cross) [Not given in 1929–30]

234. Applied Thermodynamics.—Continuation of Courses 132, 133. Irreversible operations, flow of gases and vapors, design of turbine nozzles. Application of thermodynamic theory to advanced and special problems. Prerequisite: Mechanical Engineering 122, 132, and 133. (Three lectures per week.)
4 units, spring quarter (Cross) [Not given in 1929–30]

235. Central Power Stations.—Study of the principal problems presented by the design and operation of modern central power stations driven by heat prime movers. Prerequisites: Mechanical Engineering 122, 132, and 133. (Two lectures per week.)
3 to 5 units, autumn quarter (Cross) Lec. TTh 9; problem work as arranged
Autumn, 3

236. Pumping Machinery.—Discussion of the principal problems arising in the design and operation of pumping machinery including displacement, centrifugal, rotary, and screw type propellors for general service, boiler feed, fire service, mine drainage, irrigation, municipal supply, oil line service, etc. (Two lectures per week.) Prerequisites: Mechanical Engineering 122, 132, and Civil Engineering 106.
3 to 5 units, winter quarter (Cross) Lec. MWF 9; problem work as arranged
Winter, 6

237. Hydraulic Machinery and Power Stations.—Elements of hydraulic machinery with special reference to prime movers. Elements of the design of hydraulic power stations with special reference to modern hydroelectric practice; general control of water in tunnels and penstocks, surge chamber, control of surges and shocks, valves and regulating devices, penstocks and their installation, selection of units, characteristics of impulse and reaction types, speed regulation, installation tests, and special problems. Prerequisite: Civil Engineering 106. (Four lectures and three hours' office work per week.)
5 units, spring quarter (Stebbins) Lec. MTWTh 9; problem work as arranged
Spring, 27

238. Power Plant Economics.—A brief study of fundamental financial calculations, equipment costs, best type of prime mover, economic size of units, load curves. Prerequisite: Civil Engineering 130. (Two lectures per week with problems.)
3 to 5 units, spring quarter (Cross) Lec. TTh 9
Spring, 3

239. Refrigeration.—Thermodynamics of refrigeration; refrigerating systems and industrial applications. Prerequisites: Mechanical Engineering 122 and 132.
3 units, winter quarter (Cross) Lec. TTh 9; problem work as arranged
Winter, 2

AERONAUTICS

[Enrollment in the following courses, with exception of Course 240, is limited to graduate students. Fourth-year students having the necessary prerequisites and high scholastic records may enroll in Course 240.]

240a. Introduction to Aëronautics.—History, classification, and explanation of the principles of flight of all types of aircraft, elementary laws of aërodynamics, properties of airfoils, mechanics and basic aërodynamics of

the complete airplane, elements of performance and static stability. Lectures with problems. Prerequisites: Civil Engineering 99, 100, and 106, Mathematics 23.

3 units, autumn quarter (REID) By arrangement
Autumn, 7

240b. Aërodynamics of the Airplane.—Theory of the lift and drag of airfoils and their combinations according to Lanchester, Prandtl, and Glauert. Prediction and analysis of airplane performance. Lectures with problems. Prerequisite: Mechanical Engineering 116.

3 units, winter quarter (REID) By arrangement
Winter, 5

240c. Advanced Aërodynamics.—Critical study of airfoil properties, including boundary-layer phenomena, slotted wings, etc. Stability, dynamic and rotary, and a résumé of the work of principal aërodynamic laboratories. Lectures with problems. Prerequisite: Mathematics 131.

3 units, spring quarter (REID) By arrangement
Spring, 7

241a. Airplane Structural Design.—Basic methods of analysis and design of airplane structural elements, including computation of reactions, shears, bending moments, deflections of beams, influence lines and loads in truss members, and the design of tension members, struts, and beams of wood and metal. Lectures with problems. Prerequisite: Civil Engineering 110 and Mechanical Engineering 117.

3 units, autumn quarter (NILES) By arrangement
Autumn, 6

241b. Airplane Structural Design.—Advanced methods of analysis of airplane structural elements including computations of stresses due to torsion and combined torsion and bending, deflections of trusses and beams of non-uniform section, application of the method of least work to redundant structures, and computations of stresses in and design of members subjected to combined bending and compression. Also discussion of conventional types of construction as to relative merits and fields of application. Lectures with problems.

3 units, winter quarter (NILES) By arrangement
Winter, 6

241c. Airplane Structural Design.—Continuation of *241b* and also discussion of critical loading conditions and Department of Commerce rules for stress analysis. Lectures with problems.

3 units, spring quarter (NILES) By arrangement
Spring, 7

242. Airplane Design.—The layout and general design of an airplane for a specific duty, including complete performance estimate and stress analysis. Further discussion of types of construction with special attention to design of connecting fittings. Drafting. Prerequisite: Mechanical Engineering 140*a–c* and Mechanical Engineering *241a–c*.

5 units, autumn, winter, and spring quarters (NILES, REID) By arrangement
Autumn, 7; winter, 7; spring, 7

243. Theory and Practice of Propeller Design.—Design of air propellers for specific duty, including propellers, windmills or turbines, and fans. Lectures with drafting. Prerequisite: Mechanical Engineering 240*a*.

3 units, winter quarter (LESLEY) By arrangement
Winter, 10

244. Aircraft Instruments.—Calibration and test of various instruments used in the navigation of aircraft; such as speed meters, altimeters, and

barographs, yaw meters, rate of climb meters, etc., including study of principles of design and operation. Laboratory with occasional lectures.
3 units, autumn quarter (Lesley) By arrangement
Autumn, 8

245. Aërodynamic Laboratory.—Experimental investigation of the aërodynamic properties of airfoils, airplane and airship models and propellers. Laboratory with occasional lectures.
3 units, spring quarter (Lesley) By arrangement
Spring, 11

247. Aëronautic Problems.—Investigation, experimental or otherwise, of problems in aëronautics. The intent of this course is to offer an opportunity to students to do work in any field of aëronautics of special interest.
2 to 5 units, any quarter (Lesley, Niles, Reid) By arrangement
Autumn, 3; winter, 3; spring, 4

SPECIAL RESEARCH

251. Thesis.—Investigation of some engineering problem. Required of candidates for degree of Engineer.
2 to 15 units, autumn, *winter, and *spring quarters (Entire Staff) By arrangement
Autumn, 2; winter, 6; spring, 11

Fees.—Courses 1, 2, 3, 4, 101, 102, and 103, $10 each; Courses 113*b*, 234, 236, 50 cents each; Course 235, $1; Courses 122, 123, and 124, $5 each; Course 200, $10; Course 230, $1.50 per credit hour.

MILITARY SCIENCE AND TACTICS

Edward Raynsford Warner McCabe, Lieutenant Colonel, Field Artillery, Professor
Ittai A. Luke, Captain, Ordnance Department, Associate Professor
Everett C. Williams, Captain, Field Artillery, Associate Professor
Moses W. Pettigrew, Captain, Field Artillery, Associate Professor
Richard A. Gordan, Captain, Field Artillery, Associate Professor

Field Artillery and Ordnance units of the Reserve Officers' Training Corps are maintained for the purpose of fitting students to become Reserve Field Artillery or Ordnance Officers while they are taking their regular college courses. This enables them in case of a national emergency better to perform military duty in the service of their country and with the rank for which their capabilities and training as college graduates fit them.

The course is planned to cover a period of four academic years. Any student electing the course is expected to do so with the idea that he will complete the first two years' basic course and, if possible, elect and complete the last two years' advanced course; and that upon its satisfactory completion he will accept from the President of the United States a commission, as Second Lieutenant of Field Artillery or of Ordnance in the Officers' Reserve Corps. If the college course is completed in three years, the commission may be awarded at that time, provided all subjects are covered.

The basic course is the same for both units. It consists of the first two years, completion of which fulfills the University requirement of six quarters of military or physical training. The lecture courses are classed in Group II

of the Lower Division requirements. The obligation to complete the basic course may be canceled for good and sufficient reasons approved by the head of the department and the President of the University. All students enrolled in the R.O.T.C. are furnished uniforms and equipment without cost to themselves.

The advanced course is open to selected students who satisfactorily complete the basic course. A specially tailored uniform is furnished those taking the advanced course. Advanced course students are required to attend one summer instruction camp of six weeks, the government defraying all expenses, including food, clothing, and travel to and from camp. The camp is of six weeks' duration and is a period of interesting and instructive work with the physical and moral development of the students well provided for. In addition it is valuable for its broadening effect on the student, who is associating with men from other leading American universities. Men taking the advanced course receive in addition to the foregoing commutation of subsistence at the rate of $9 per month for two years and $21 per month while at the required camp. Five units of credit will be given for satisfactory completion of the camp.

The United States Government places at the disposal of the University for instruction purposes the necessary number of horses and horse equipment; personal equipment; one complete 75-millimeter battery with fire control and reconnaissance instruments; motor equipment including caterpillar tractors, trucks, and motorcycles; and a well-equipped ordnance laboratory.

FIELD ARTILLERY COURSE

First-Year Basic (Freshman)

2. Gunnery.—(Two hours per week.) Simple definitions; the elements of the trajectory and their calculation; determination of firing data both with and without instruments; use of firing data by cannoneers.

2 units, autumn, winter, and spring quarters
Autumn, 17; winter, 52; spring, 27

11. Practical Work.—(Three hours per week.) Individual instruction in equitation to include saddling, bridling, adjustments, acquiring a firm seat at all gaits; use of the aids. Fundamentals of Military Science.

1 unit, autumn quarter
Autumn, 111

12. Practical Work.—(Three hours per week.) Equitation continued. Individual instruction in the duties of the cannoneers in the service of the 75-millimeter gun. Gunners' examination. Battery instruction in dismounted drill.

1 unit, winter quarter
Winter, 100

13. Practical Work.—(Three hours per week.) Equitation continued. Individual instruction in fire control instruments including range finder, battery commander's telescope, aiming circle and field glasses. Duties of cannoneers in occupation of position and simulated firing.

1 unit, spring quarter
Spring, 93

Second-Year Basic (Sophomore)

5. Care of Animals.—(Two hours per week.) Lecture course covering the care and conditioning of the horses, including care and management in

the field; forage and animal nutrition; types of artillery horses, breeds, and blood lines; shoeing, grooming, stable management and exercise; hippology, anatomy, physiology, points, confirmation and age; wounds, simple diseases and their treatment; veterinary medicines; entraining and detraining; care en route.

2 units, spring quarter
Spring, 71

21. Practical Work.—(Three hours per week.) Equitation continued. Individual instruction in map making, including construction of pace scales; simple traversing; intersection; resection; contouring.

1 unit, autumn quarter
Autumn, 106

22. Practical Work.—(Three hours per week.) Harnessing, pair driving, and driving and draft. Battery instruction in dismounted drill.

1 unit, winter quarter
Winter, 99

23. Practical Work.—(Three hours per week.) Review instruments and gun drill. Battery mounted and tactical exercises.

1 unit, spring quarter
Spring, 79

First-Year Advanced (Junior)

101. Advanced Gunnery.—(Three hours per week.) All elements of the basic principles of rapid preparation and conduct of fire. Elementary ballistics; the trajectory and its elements; the mission of field artillery; preparation of firing data by parallel and compass methods; dispersion and the law of errors and its practical application to artillery; the firing commands; types of fire as delivered by artillery; method of adjusting on all types of targets, observation axial. Blackboard firing. Prerequisite: Military Science 2.

3 units, autumn and spring quarters
Autumn, 30; spring, 12

102. Advanced Gunnery.—(Three hours per week.) Lateral observation; use of the aiming circle, plane table, and compass in laying guns by deliberate and more accurate methods; the firing tables; the meteorological message; weather corrections; normal, emergency, and rolling barrages; successive concentrations; aërial observation; flash, sound, and high burst ranging; visibility and dead space. Prerequisite: Course 101.

3 units, winter and spring quarters
Winter, 43; spring, 7

103. Tactical Employment of Artillery Details.—(Three hours per week.) Artillery organization. Battery and battalion details and their use in reconnaissance, selection, and occupation of position. The infantry-artillery team. The artillery combat order. Map problems to include the battalion.

3 units, autumn and winter quarters
Autumn, 15; winter, 15

131. Practical Work.—(Three hours per week.) Individual instruction in advanced equitation. The training of remounts; riding with bit and bridoon; jumping. Battery instruction in drill of the firing battery.

1 unit, autumn quarter
Autumn, 46

132. Practical Work.—(Three hours per week.) Practical computation of firing data and the functions of the battery detail. Battery instruction in dismounted drill.

1 unit, winter quarter
Winter, 42

133. Practical Work.—(Three hours per week.) Individual instruction in conduct of fire, including practical application on the smoke bomb range of the principles taught in Courses 101 and 102. Battery instruction as officers and noncommissioned officers at mounted drills and at tactical exercises.
1 unit, spring quarter
Spring, 52

Second-Year Advanced (Senior)

100. Polo.—(Three hours per week.) Optional. Open to all students who have completed Course 11.
1 unit, autumn, winter, and spring quarters
Autumn, 38; winter, 47; spring, 48

104. Tactical Employment of Field Artillery.—(Three hours per week.) Fundamentals of the organization and tactics of the army and its various arms and elements; field artillery organization, tactics, operations, employment, information, ammunition, supply, with special emphasis on artillery-infantry team work; functions of various calibers of field artillery and principles involving the type used; divisional, corps, and army artillery and functions of each; staff organization, functions, and duties; field orders, logistics; map problems.
3 units, winter and spring quarters
Winter, 8; spring, 16

105. Military History and Policy of the United States.—(Three hours per week.) A critical study of our military policy, and a military survey of the most important campaigns and battles of the United States (including the World War). Military operations and strategy. Prerequisite: Course 104.
3 units, winter and spring quarters
Winter, 32; spring, 43

106. Military Law and Administration.—(Three hours per week.) History, authority, sources of military law; military law as applied to the United States Army in peace and in war; procedure in courts-martial; rules of land warfare; military administration to include duties of battery officers upon mobilization.
3 units, autumn and spring quarters
Autumn, 26; spring, 38

141. Practical Work.—(Three hours per week.) Command and leadership, acting as assistant instructors.
1 unit, autumn quarter
Autumn, 45

142. Practical Work.—(Three hours per week.) Command and leadership, acting as assistant instructors.
1 unit, winter quarter
Winter, 42

143. Practical Work.—(Three hours per week.) Command and leadership, acting as assistant instructors.
1 unit, spring quarter
Spring, 34

Summer Courses

Summer Camp for regularly enrolled students taking the Military Science course, Camp of six weeks' duration.
5 units, summer quarter
Summer, 38

ORDNANCE R.O.T.C. CURRICULUM

[Open to Engineering and Chemistry students only]

First-Year Basic

Subject	Course	Units Autumn	Winter	Spring
Practical Work	M.S. 11, 12, 13	1	1	1
Gunnery	M.S. 2		2	

Second-Year Basic

Practical Work	M.S. 21, 22, 23	1	1	1

First-Year Advanced

*Materiel	M.S. 151, 154	2	2	
*Ammunition and Explosives	M.S. 152			2

Second-Year Advanced

Ordnance Engineering	M.S. 155	2		
*Military Law and Administration	M.S. 156		2	
Organization of the Ordnance Department and Industrial Mobilization	M.S. 157			2

During the two years of the Advanced Ordnance course an average must be maintained of three hours per week (not units) of lecture or laboratory work elected from the following listed engineering and chemistry courses:

Chemistry 130, 171, 173
Civil Engineering 110, 117, 130
Electrical Engineering 104, 125
Mechanical Engineering 1, 2, 3, 122, 123, 133
Mining Engineering 105

ADVANCED ORDNANCE COURSES

First-Year Advanced (Junior)

151. Materiel.—(Two hours per week.) A study of the design, manufacture, and use of small arms weapons and the various types of medium caliber artillery materiel.
2 units, autumn quarter (Luke)
Autumn, 21

152. Ammunition and Explosives.—(Two hours per week.) A study of the design, manufacture, and use of small arms and artillery ammunition including ballistic powders, high explosives, primers and primer mixtures, projectiles and fuses.
2 units, spring quarter (Luke)
Spring, 24

154. Materiel.—(Two hours per week.) Continuation of Course 151. This course includes a study of the design, manufacture, and use of railway and fixed major caliber artillery materiel.
2 units, winter quarter (Luke)
Winter, 15

* These courses are listed in Group B of the School of Engineering Curriculum.

Second-Year Advanced (Senior)

155. Ordnance Engineering.—(Two hours per week.) Lectures and problems dealing with the fundamental principles of the design of guns, carriages, recoil systems, ammunition, and fire control instruments. A brief study of interior and exterior ballistics is made.
2 units, autumn quarter (Luke)
Autumn, 17

156. Military Law and Administration.—(Two hours per week.) The purpose of the course is to give the student a general knowledge of the procedure of courts-martial and of military law as applied to the United States Army in peace and in war. A study will also be made of military administration to include the duties of battery officers.
2 units, winter quarter (Luke)
Winter, 23

157. Organization of Ordnance Department and Industrial Mobilization.—(Two hours per week.) A brief outline of the organization of the Army showing the mission and functions of the Ordnance Department, and a detailed description of the organization of the Ordnance Department. Instructions in the regulations and methods pertaining to property accounting. General information on mass procurement, requirements, allocations, organization of the Ordnance District system, and responsibilities of Reserve Officers assigned to districts.
2 units, spring quarter (Luke)
Spring, 21

158. Ordnance Problems.—Lectures and laboratory work dealing with current Ordnance problems involving design and manufacture. Not a required course.
1 or more units, winter and spring quarters (Luke)
Winter, 2; spring, 4

[Physical and Metallographic Constitution of Ordnance Steels.—(Six hours per week.) This course is not required but may be elected by Ordnance students who have had Mining Engineering 105. A laboratory course designed to acquaint the student with the physical and metallographic properties of steels by means of heat treatment of specimens; determination of tensile and other properties; microscopic examination and some practice in photomicrography. (See Mining Engineering 107.)]
2 units, autumn quarter (Crook, Taylor) [Not given in 1929–30]

Graduate

241. Command and Leadership.
4 units, autumn quarter (McCabe)
Autumn, 2

242. Command and Leadership.
4 units, winter quarter (McCabe)
Winter, 3

243. Command and Leadership.
4 units, spring quarter (McCabe)
Spring, 4

Summer Courses

Summer Camp for Ordnance Students.—The camp is of six weeks' duration.
5 units, summer quarter
Summer, 17

MINING ENGINEERING

THEODORE JESSE HOOVER, WELTON JOSEPH CROOK, WALDEMAR FENN DIETRICH, FREDERICK GEORGE TICKELL, Professors
CHARLES ARTHUR DOBBEL, Assistant Professor
ORSON CUTLER SHEPARD, Instructor

Students having the profession of Mining, Metallurgical, Petroleum, or Ceramic Engineering in view, will pursue the curriculum leading to the degree of Bachelor of Arts in Engineering (see pages 243–244), registering in the School of Engineering after completing the Lower Division requirements. Such students are advised to include as many as possible of the following courses as electives:

For all students: Geology 103, 121; Economics 4; Mining Engineering 108.

For mining engineering students: Civil Engineering 190, 191; Geology 142, 143, 161, and 163; Mining Engineering 101, 102, and 106.

For metallurgical engineering students: Civil Engineering 192, 193; Chemistry 130, 171, 173; Physics 100; Mining Engineering 102, 106, and either 101 or 103.

For petroleum engineering students: Geology 142, 143; Chemistry 121, 123, 128, 130, 171; Mining Engineering 103.

For ceramic engineering students: Chemistry 130, 171, and 173; Physics 100; Civil Engineering 190 and 191; Mining Engineering 102 and 104.

Upon completion of the work for the degree of Bachelor of Arts in Engineering the student will be eligible for candidacy for the degree of Engineer and will then register in the Department of Mining Engineering. The curriculum for the degree of Engineer shall require a minimum of six quarters in residence, and shall consist of 90 units of approved university work and the presentation of a thesis which must have the approval of the Committee on Graduate Study of the University. Upon completion of this two-year graduate curriculum the candidate will be recommended by the faculty of the Department for the degree of Engineer.

Graduates with the degree of Bachelor of Arts or its substantial equivalent from other institutions may be admitted to candidacy for the degree of Engineer, and may be recommended for the degree of Engineer by the faculty of the Department when such candidates have completed a course of study which is substantially equivalent to the course provided for in the previous paragraphs.

UNDERGRADUATE COURSES

101. Principles of Mining.—Lectures. Covers the entire subject of the mining of metals and non-metals except fuels, serves as an outline for the orderly development of professional studies and meets the needs of the general engineering student. Includes a study of properties, occurrence, prospecting, development, exploitation, and utilization. Prerequisite: Geology 1 or 1*a*.
3 units, spring quarter (DIETRICH) MWF 8
Spring, 22

102. Principles of Metallurgy.—Lectures. Elementary discussion of broad principles of ore dressing and metallurgical operations. Preparatory to more

detailed treatment in later courses; crushing, classification, concentration, hydrometallurgy, pyrometallurgy, electrometallurgy. Prerequisite: Chemistry 12 or 4; Physics 1 and 2, or 13 and 14.
5 units, winter quarter (DEPARTMENT FACULTY) MTWThF 10
Winter, 11

103. Principles of Petroleum Mining.—Lectures. Covers the whole subject of petroleum exploitation, giving the student a comprehensive view of the industry, serves as an outline for the orderly development of professional studies, and meets the needs of the general engineering student. Properties, origin, accumulation, and occurrence of petroleum; valuation, development, and production of oil properties; storage, transportation, testing, refining, and utilization of petroleum and its products. Prerequisite: Geology 1 or 1*a*.
3 units, spring quarter (TICKELL) MWF 10
Spring, 36

104. General Ceramics.—Lectures. An introductory course to the field of ceramics and ceramic engineering. A brief summary of ceramic manufacturing processes and types of products is included, but the principal emphasis of the course is on the chemistry and physics of ceramic materials. Prerequisite: Chemistry 12 or 4.
3 units, autumn quarter (DIETRICH) MWF 10
Autumn, 4

105. Pyrometallurgy, Iron and Steel.—Lectures. The principles, practice, and cost of producing iron and steel; theory and practice of heat treatment; introduction to metallography of steel; theory, use, and production of alloy steels; nonferrous metals and alloys in engineering construction. Prerequisite: Chemistry 12.
3 units, winter quarter (CROOK) MWF 8
Winter, 132

106. Assaying.—Laboratory and lectures. Determination of gold and silver in ores and metallurgical products. Prerequisites: Chemistry 12 or 4, Geology 121.
5 units, spring quarter (SHEPARD) [Not given in 1929–30]

107. Physical and Metallographic Constitution of Ordnance Steel.—A laboratory course designed to acquaint the student with the physical and metallographic properties of steel by means of heat treatment of specimens; determination of tensile and other properties; microscopic examination and some practice in photomicrography. Open to Ordnance R.O.T.C. students only. Prerequisite: Mining 105.
2 units, autumn quarter (CROOK, TAYLOR) [Not given in 1929–30]

108. Testing of Fuels and Lubricants.—Laboratory and lectures. The standard tests made on coal, fuel oil, lubricants, kerosene, gasoline, and gas.
3 units, winter quarter (TICKELL)
Winter, 13 Lec. TTh 9; Lab. one afternoon a week by arrangement

109. Ceramic Testing.—Methods of laboratory testing for the determination of the physical properties of clays, and finished products. Interpretation of tests. Prerequisite: Mining 104 (may be taken together).
3 units, winter quarter (DIETRICH) By arrangement
Winter, 2

GRADUATE COURSES

ECONOMICS OF MINING

201. Mine Valuation.—Lectures and problems. General considerations; sampling and measurement; widths and volumes; economic geology; analy-

sis of cost; price of metals; smelter contracts; amortization and depreciation; reserve reports. Prerequisites: Mining 101 and either 102 or 103.
1 unit, autumn quarter (HOOVER) Th 10
Autumn, 9

202. Mine Organization.—Lectures. The mining company; forms of business; frauds; selling mines; shares; balance sheet; profits; valuation; taxes; law. Prerequisite: Mining 201.
1 unit, winter quarter (HOOVER) Th 9
Winter, 5

203. Mine Management.—Lectures. Organization and discipline of staff; technical committees, consulting engineers, managing directors, general managers; business principles and scientific management; vocational and technical training; personal qualities and efficiency; organization and discipline of labor; reports; supplies and material; costs and accounts. Prerequisite: Mining 202.
1 unit, spring quarter (HOOVER) Th 9
Spring, 6

205. Research and Thesis.—Original study of some problem in the economics of mining, metallurgy, or petroleum.
Autumn, *winter, and *spring quarters (HOOVER) [Not given in 1929–30]

MINING

211. Prospecting and Development.

a) *Prospecting.* Lectures, seminar, and problems. The prospector, geological aspects; placer prospecting, prospecting for deposits in place, methods, and costs, engineering features; boring methods; geophysical applications. Prerequisite: Mining 101.
3 units, autumn quarter (DOBBEL) Seminar by arrangement, Lec. MW 11
Autumn, 8

b) *Development.* Seminar and problems. Development plans; methods and cost of shaft sinking, drifting, and raising; engineering records, development reports. Prerequisite: Mining 101.
2 units, autumn quarter (DOBBEL) By arrangement and F 11
Autumn, 8

212. Mine Equipment.—Lectures and problems. The mathematical theory underlying the design and operation of mine equipment. Compressed air, haulage, hoisting, pumping, ventilation. Prerequisite: Mining 101, Civil Engineering 106, 110, Electrical Engineering 102, 103, Mechanical Engineering 122 and 132.
4 units, winter quarter (DIETRICH) TTh 11; Th 1:05
Winter, 4

213. Mine Plant.—Seminar and problems. The economic selection of mine equipment and the lay-out of mine plants. The details of the course are arranged to suit the needs of the individual students. Prerequisite: Mining 212.
3 to 5 units, spring quarter (DIETRICH) TTh 8
Spring, 2

214. Operations.—Seminar and problems. The methods and costs of surface and underground mining. Prerequisite: Mining 211*b*.
5 units, spring quarter (DIETRICH) Lec. MWF 9
Spring, 3

215. Advanced Work in Mining Engineering.—Seminar and problems. Special work in Courses 211 to 214.
2 to 10 units, autumn, *winter, and *spring quarters (DIETRICH, DOBBEL)
Autumn, 3; winter, 2; spring, 3

216. Mine Sampling and Surveying.—Preliminary study and practice during the winter quarter, followed by a field course during the spring vacation. Prerequisites: Civil Engineering 20 and Mining 201.
4 units, winter quarter [Not given in 1929–30]

219. Mining Research and Thesis.—Original study of some problem in mining engineering.
Autumn, *winter, and *spring quarters (Hoover, Dietrich, Dobbel) [Not given in 1929–30]

Metallurgy

221. Ore Preparation.—Lectures, seminar, and laboratory. Theoretical and laboratory studies of the physical properties of inorganic substances as a basis for evaluating the factors that influence the selection of equipment for crushing, grinding, sizing, classification, thickening, and filtration. Prerequisites: Mining 102 and Geology 121.
5 units, winter quarter (Shepard) MWF 9; Lab. by arrangement
Winter, 2

222. Concentration Processes.—Lectures, seminar, and laboratory. The principles, practice, and cost of the concentration of metalliferous minerals from ores. Prerequisite: Mining 221.
4 units, spring quarter (Shepard) TTh 10; Lab. by arrangement
Spring, 1

223. Engineering Applications of Photography.—Demonstrations and laboratory. The technique of the various photographic processes useful to the engineer; copying, photography of apparatus, photomicrography by reflected and transmitted light. Open to limited number of students, by application.
2 units, autumn quarter (Tickell, Crook) By arrangement
Autumn, 5

224. Hydrometallurgy, Gold and Silver.—Lectures and laboratory. The principles, practice, and cost of treating ores by amalgamation, cyanidation, chlorination, and lixiviation processes. Prerequisite: Mining 221.
4 units, autumn quarter (Shepard) [Not given in 1929–30]

225. Hydrometallurgy, Copper, Lead, and Zinc.—Lectures. The principles, practice, and cost of recovering copper, lead, and zinc from ores by hydrometallurgical processes. Prerequisite: Mining 221.
3 units, winter quarter (Shepard) MWF 11
Winter, 1

226. Hydrometallurgy.—Laboratory study of hydrometallurgical problems. To accompany Course 225.
2 to 5 units, winter quarter (Shepard) By arrangement
Winter, 1

227. Electrometallurgy.—Lectures and seminar. Review of electrochemistry as applied to electrodeposition of metals; principles and practice of electrolytic refining. The principles, practice, and cost of electric furnace work. Prerequisite: Mining 225.
3 units, spring quarter (Shepard) [Not given in 1929–30]

228. Pyrometallurgy, Copper, Lead, and Zinc.—Lectures. The principles, practice, and cost of recovering copper, lead, and zinc from ores by pyrometallurgical methods; details of smelter operations; the physical chemistry of metallurgical operations. Prerequisite: Mining 102.
3 units, autumn quarter (Crook) MWF 8
Autumn, 1

229. Design of Driers, Furnaces, and Kilns.—Seminar and laboratory. The mathematical and laboratory problems will be selected in accordance with the individual interests of the students, and may include pyrometallurgical operations, mine ventilation problems, ceramic drying, and ceramic firing. Prerequisites: Mining 108 and either 101, 102, 103, or 104; Mechanical Engineering 231.
3 units, winter quarter (DIETRICH) [Not given in 1929–30]

230. Metallurgical Calculations.—Seminar and lectures. Solution of problems involving physical chemistry as applied to pyrometallurgy and hydrometallurgy; calculation of efficiency of processes and furnace operations. Blast furnace charge calculations, etc. Prerequisite: Mining 102.
3 units, autumn quarter (SHEPARD) T 8
Autumn, 3

231. Metallography.—Laboratory and lectures. Study of the properties and microstructure of metals and alloys; technique of metallographic investigation and microphotography. Prerequisites: Mining 102 and 105.
4 units, winter quarter (CROOK) By arrangement
Winter, 2

232. Pyrometry.—Laboratory and lectures. Determination of high temperatures and calibration of pyrometrical instruments. Prerequisites: Mining 102 and 105.
3 units, winter quarter (CROOK, TAYLOR) By arrangement
Winter, 3

233. Heat Treatment.—Laboratory and lectures. Practice in the heat treatment of plain and alloy steels and nonferrous alloys under controlled conditions. Testing and examination of products. Prerequisites: Mining 231 and 232.
4 units, spring quarter (CROOK) By arrangement
Spring, 2

234. Metallurgical Analysis: Ores.—Laboratory. Rapid methods for quantitative determination of constituents of nonferrous ores and metallurgical by-products. Prerequisite: Mining 102.
3 or 4 units, autumn quarter (SHEPARD) MTW 1:05
Autumn, 3

235. Metallurgical Analysis: Metals and Alloys.—Laboratory. Rapid methods for quantitative determination of constituents of metals and alloys, ferrous metallurgical products, and raw materials. Prerequisites: Mining 105 and 234.
3 or 4 units, autumn quarter (CROOK, TAYLOR) By arrangement
Autumn, 3

236. Industrial Processes.—(Same as Mechanical Engineering 200.)
3 to 5 units, autumn, winter, and spring quarters (TAYLOR, CROOK, SHOP SPECIALISTS) By arrangement
Autumn, 1; winter, 1; spring, 6

239. Advanced Work in Metallurgy.—Special work in Courses 221 to 238, inclusive. Subject and prerequisites by arrangement.
2 to 15 units, autumn, *winter, and *spring quarters (CROOK, DIETRICH, SHEPARD) By arrangement
Autumn, 2; winter, 2; spring, 3

240. Metallurgical Research and Thesis.—Original study of some problem in metallurgical engineering.
Autumn, *winter, and *spring quarters (HOOVER, CROOK, DIETRICH) [Not given in 1929–30]

Petroleum

241. Petroleum Engineering.—Lectures and problems. A course in the application of engineering principles to the solution of underground problems; construction of graphic logs and sections; correlation of strata, study of water problems. Prerequisite: Mining 103.
4 units, autumn quarter (Tickell) MWF 9
Autumn, 2

242. Oil-Well Water Analysis.—Laboratory. Rapid methods for the volumetric analysis of oil-well waters. Prerequisite: Mining 241.
2 units, spring quarter (Tickell) By arrangement
[In alternate years; given in 1929–30]
Spring, 3

243. Oil Field Development.—Lectures. Dealing with the equipment and methods used in drilling oil wells. Prerequisite: Mining 103.
2 units, autumn quarter (Tickell) TTh 9
Autumn, 2

244. Production of Oil.—Lectures. The production of oil, control of wells, pumping methods, operations, theory and operation of gas-lift, dehydration. Prerequisite: Mining 103.
2 units, winter quarter (Tickell) [Not given in 1929–30]

245. Storage and Transportation of Petroleum.—Lectures and problems. Methods of storage and transportation; methods of gauging, design of tanks and pipelines, prevention of storage losses, fire hazards, gas measurement. Prerequisites: Mining 103, Civil Engineering 106.
3 units, winter quarter (Tickell) TTh 8
Winter, 1

246. Petroleum Refining and Utilization.—Lectures and problems. Refined products and their use for fuels, light generation, and lubrication; the design of heat exchangers; the economics of petroleum. Prerequisite: Mining 103.
3 units, spring quarter (Tickell) TTh 10
Spring, 3

247. Oil Land Valuation.—Lectures and problems. The methods used in appraising oil lands; estimation of future production, operating costs, depreciation of material, salvage, value of future profits, tax returns. Prerequisites: Mining 103, Mathematics 23.
2 units, spring quarter (Tickell) Lec. T 9
Spring, 3

248. Petroleum Refinery.—Laboratory. The analytical distillation of crude petroleum and the examination of its refined products; tests on heat exchangers. Prerequisite: Mining 108.
2 units, spring quarter (Tickell) [Not given in 1929–30]

249. Oil Field Sediments.—Laboratory. Mechanical analysis of sediments as to grain size, porosity, mineral content, the microscopic identification of detrital minerals, oil content by extraction and distillation, etc. Prerequisites: Mining 103, Geology 121.
2 units, autumn quarter (Tickell) By arrangement
Autumn, 6

250. Advanced Work in Petroleum Engineering.—Laboratory. Special work in Courses 241 to 249.
2 to 5 units, autumn quarter (Tickell) By arrangement
Autumn, 3

251. Petroleum Research and Thesis.—Original study of some problem in petroleum engineering.
Autumn, *winter, and *spring quarters (Tickell, Hoover) [Not given in 1929–30]

Ceramics

261. Clay Analysis.—Quantitative analysis of the constituents of clays. Prerequisite: Mining 234.
3 units, autumn quarter (Shepard) [Not given in 1929–30]

262. Refractories.—Lectures, seminar, and laboratory. The manufacture, uses, and testing of refractories. This course is primarily for ceramic engineering students. Prerequisites: Mining 102, 109, and 232.
5 units, spring quarter (Dietrich) [Not given in 1929–30]

263. Testing of Refractories.—Laboratory. The testing and selection of refractory materials. A short course, especially adapted to the needs of metallurgical students. Prerequisites: Mining 102 and 232.
2 units, spring quarter (Dietrich) By arrangement
Spring, 2

264. Ceramic Glazes.—Lectures, seminar, and laboratory. The theory, preparation, and application of ceramic glazes and enamels. Prerequisites: Mining 109, 221, and 232.
5 units, autumn quarter (Dietrich) [Not given in 1929–30]

269. Special Problems in Ceramics.—Seminar and laboratory. Special work on economic, technical, or scientific problems in ceramics, adapted to meet the needs of individual students. Prerequisites by arrangement.
5 to 15 units, autumn, *winter, and *spring quarters (Dietrich) [Not given in 1929–30]

270. Ceramic Research and Thesis.—Original study of some problems in ceramics.
Autumn, *winter, and *spring quarters (Hoover, Dietrich) [Not given in 1929–30]

FOOD RESEARCH INSTITUTE

Carl Lucas Alsberg, †Joseph Stancliffe Davis, Alonzo Englebert Taylor, Directors
Holbrook Working, Louis B. Zapoleon, Economists
Merrill Kelley Bennett, Katharine Snodgrass, George Minch Weber, Research Associates

The Food Research Institute, organized under a grant from the Carnegie Corporation of New York for study of the production, distribution, and consumption of food, will be in active operation during all four quarters. It is virtually a research department, equipped with its special library, and the directors and staff are engaged primarily in research rather than in teaching.

The principal lines of work now under way are as follows: (1) Economic and statistical analyses of the world wheat situation, present and past, and of phases and factors in that situation; (2) Economic and statistical studies of the various fats and oils of vegetable and animal origin; (3) Analyses of the agricultural situation and agricultural policy in the United States; (4) Analyses of the factors affecting and the relationships between prices of various foodstuffs; and (5) Studies in the chemistry of the cereals, the starches, and the fats and oils. Published studies in these fields appear in the Institute's *Wheat Studies, Fats and Oils Studies*, and *Miscellaneous Publications,* and in articles appearing in various journals.

The Institute offers a few properly qualified graduate students the opportunity to undertake research, under the direction of members of its staff, in subjects lying within its general field. The facilities for such research are especially adequate in the specific lines of study upon which the Institute is currently engaged. In most cases students may obtain guidance while registered in appropriate research courses in other departments, as Economics or Chemistry; or they may register in the course named below. Students well prepared for advanced research, if exceptionally qualified, are sometimes granted Food Research Fellowships of $800 and upward.

Specific inquiries may be addressed to the Executive Secretary, Dr. Taylor.

RESEARCH COURSE

201. Food Research Problems.—Research upon subjects lying within the general field of food production, distribution, consumption, and prices.
Autumn, winter, spring, and summer quarters (Alsberg, Taylor, Working, Zapoleon, Bennett) By arrangement

† Absent on leave, beginning November, 1929.

HOOVER WAR LIBRARY

Ralph Haswell Lutz (Professor of History), *Chairman*, Ephraim Douglass Adams (Professor of History), Joseph Stancliffe Davis (Director, Food Research Institute), Harold Henry Fisher (Curator, American Relief Administration Archives), *Secretary*, Herbert Clark Hoover (Founder), Graham Henry Stuart (Professor of Political Science), Nathan Van Patten (Director of University Libraries), Ray Lyman Wilbur (President of the University), Murray Shipley Wildman (Professor of Economics), Directors
Nina Almond, Librarian
Philip T. McLean, Reference Librarian
George I. Gay, Economist
Leon Nicolaebick Litoshenko, Research Associate
Suda L. Bane, Assistant Curator, A.R.A. Archive
Agnes W. Schultze, Assistant Curator, C.R.B. Archive
James Bunyan, Research Assistant

The Hoover War Library is a collection of materials for research in the causes, the conduct, and the results of the World War, including the period of reconstruction since the end of the war. The materials, from all nations whether belligerent or neutral, cover the fields of the social sciences for the period indicated. The collection includes government documents, files of newspapers and serials, manuscript memoirs and diaries of men and women important in world affairs during the war and post-war periods, publications of national and international bodies, both official and unofficial, books and pamphlets. The materials concerning the underlying causes of the war have been extended to the period commencing with the realignment of the world powers after 1871, the formation of the Triple Alliance and the Triple Entente, and the subsequent diplomatic crises which antedated the war. The Library's time limit for the post-war period has been fixed tentatively only. The collection is being made as adequate as possible on the transition from war conditions to post-war normal conditions.

The Hoover War Library has a separate physical existence in the University Library with its own stack, reading room, and staff. The reference staff, including the assistant in charge of the Slavic collection, are present to assist the users of the Library. For only a relatively small part of the Library is there a dictionary catalogue. The uncatalogued section is represented in the reading room by an author's check list arranged in various alphabets corresponding to the arrangement of materials on the shelves. For a complete record of the materials in the Library the student must consult the check list, the small but slowly expanding dictionary card catalogue, or the reference staff.

The use of the unrestricted materials is open to graduate students and faculty of Stanford University, to teachers and graduate students from other universities, and to other qualified investigators approved by the Directors. The Hoover War Library offers no university courses of instruction but several departments offer courses using its materials. Members of the faculty of the University engaged in active academic work in the social sciences are also directing research work in the Hoover War Library in those fields in which they are concerned.

SCHOOL OF LAW

Marion Rice Kirkwood, Joseph Walter Bingham, Arthur Martin Cathcart, Stanley Morrison, George Edward Osborne, William Brownlee Owens, †Harold Shepherd, Chester Garfield Vernier, Clarke Butler Whittier, Professors

Edmund Morris Morgan (Harvard University), Rudolph Hans Nottelmann (University of Washington), Lewis M. Simes (Ohio State University), Acting Professors (Summer Quarter)

†James Emmet Brenner, Lowell Turrentine, Associate Professors

Harry John Rathbun, Acting Associate Professor

Arthur Harold Kent (University of Chicago), Acting Associate Professor (Summer Quarter)

Sigvald Nielson, Acting Assistant Professor

Stanley Howell (University of Southern California), Acting Assistant Professor (Summer Quarter)

Oscar Kennedy Cushing, Henry Granville Hill, Leonard Saxton Lyon, Lecturers

ORGANIZATION

The School of Law was established, as a department of the University, in 1893. Its purpose is to provide a thorough legal education for students who are fitted by their maturity and their previous academic training to pursue professional study under university methods of instruction. The curriculum covers three academic years and constitutes an adequate preparation for the practice of law in any English-speaking jurisdiction. In all courses some special attention is paid to problems of local law in the Western States.

By taking advantage of the four-quarter system, with its opportunities for summer instruction, the Law curriculum may be completed in two and one-fourth calendar years.

THE LIBRARY

The Law Library contains over 36,000 volumes, including complete sets of the English, Irish, Scotch, Australian, New Zealand, and Canadian reports, the reports of all Federal courts, a practically complete set of the reports of the American States, the Australian States, and the Canadian Provinces, the National Reporter system, the standard collections of cases, the standard English and American legal encyclopedias, the principal American, English, and Canadian digests and citators, sets of the leading American, British, Canadian, and Continental legal periodicals, together with a good collection of textbooks. There is also a somewhat complete collection of compiled laws, session laws, and other statutory material, both Federal and State, as well as British, Canadian, and Australian.

The class of 1911, upon graduation, adopted a plan for the purchase, from time to time, of works on Legal History. This collection is known as the "Class of 1911 Memorial Collection on Legal History." The class of 1912 adopted a similar plan for the purchase of a memorial collection of celebrated trials.

Through the efforts of the Stanford Law Association a fund was established in 1923 in memory of Charles Andrews Huston, who was for many

† Absent on leave, 1929–30.

years Professor of Law and Dean of this School. The income from this fund is to be used for the purchase of books for the Law Library.

Through the generosity of Justice McFarland, Justice Melvin, Justice W. A. Sloane, Justice Frank H. Kerrigan, and Justice John E. Richards, the Library has received, since 1907, a copy of the records of the California Supreme Court, and through the generosity of Justice Sloss, Justice Warren Olney, Jr., Justice C. A. Shurtleff, Justice Frank H. Kerrigan, and Justice John E. Richards, a copy of the records of the District Courts of Appeal.

The University Libraries are also available for use by students of the School of Law. A Law Library fee of $5 is charged each student registered in Law.

ADMISSION TO THE SCHOOL OF LAW

Admission to the professional curriculum in Law in regular standing is granted only to students who have received the degree of Bachelor of Arts, or an equivalent degree, from this University or from some other institution of recognized collegiate standing.

In the discretion of the faculty, admission may be granted to a very limited number of students who cannot meet the foregoing requirement, but who are eligible for admission to the University, who are twenty-three years of age, and whose previous experience is such as to justify the presumption of their ability to do the work successfully. Such students are termed "unclassified" and are not eligible for a degree.

It is advised that the matter of admission be settled in advance. For this purpose those seeking admission in regular standing should furnish a complete and official transcript of their college work, showing courses pursued, grades received, and degrees conferred. The necessary application blanks will be provided on request.

Second- and third-year students are admitted at the beginning of any quarter, but first-year students can be accepted only at the beginning of the summer or autumn quarters.

THE DEGREE OF BACHELOR OF LAWS

Students who have received the degree of Bachelor of Arts, or its equivalent, from this University or from some other institution of recognized collegiate rank, and who have satisfactorily completed courses in Law aggregating 117 units, including therein all first-year professional courses, and who have devoted nine full quarters of time to the study of Law, and who have otherwise satisfied the requirements of the University and of the School of Law, will be granted the degree of Bachelor of Laws (LL.B.).

THE DEGREE OF JURIS DOCTOR

To be admitted to candidacy for the degree of Juris Doctor a student must be eligible for admission to the School of Law in regular standing, must have completed the work for the first degree in law at this University, or in some other university law school of recognized standing in which work for the first degree in law covers a period of not less than six years of combined academic and law work, and must be approved for candidacy by action of the Law Faculty. For this purpose there must be furnished a complete and official transcript of the academic and professional work of the applicant, showing in detail courses pursued, grades received, and degrees conferred. This transcript should be sent by the proper official directly to the

Dean of the School of Law. Students who have met the foregoing requirements and who have completed with a high average and otherwise to the satisfaction of the Law Faculty thirty-two units of work in law courses not previously taken, including therein at least eight units to be selected from courses numbered 280 and 286, as set forth in this announcement, and who have in addition submitted an acceptable thesis on a legal problem approved by the Faculty, will be granted the degree of Juris Doctor (J.D.).

NON-PROFESSIONAL COURSES

[Credit in non-professional courses may be counted toward the A.B. degree, but not toward the professional degree.]

101. Business Law I.—An elementary course in the law of contracts to teach the student who expects to become an engineer, doctor, banker, teacher, or business man, but not a lawyer, how and when a contract is made and the risks imposed by law as a consequence of the formation of the contractual relationship. The object of the course is to provide the student with necessary legal information to enable him to seek professional legal advice at the right time. The course acquaints the student with legal and business terms necessary to understand simple legal procedure. Text: Bays, *Cases on Commercial Law.*

3 units, autumn quarter (RATHBUN)
Autumn, 215 (2 sections)

102. Business Law II.—An elementary course in the law of agency and negotiable instruments for the use of students who do not expect to enter law as a profession. The object of this course is the same as that of Business Law I. Prerequisite: Business Law I.

3 units, winter quarter (RATHBUN)
Winter, 123 (2 sections)

103. Business Law III.—This course takes up selected problems of law concerning risks borne by manufacturer, wholesaler, and retailer in trade, corporations, partnership, illegal trade practices, credit and securities, bankruptcy, and torts. The course is a continuation of Business Law I and II and is designed to acquaint the student with certain legal principles which affect business policies. The method of instruction includes assigned readings and reports. Prerequisite: Business Law I and II.

3 units, spring quarter (RATHBUN)
Spring, 64

200. Law Problems in Business.—This course is given solely for students enrolled in the Graduate School of Business. Such students are advised to take Courses 101 to 103, inclusive, or their equivalent, while undergraduates. The course includes selected legal problems in credit and risk bearing, in credit and commercial instruments, in management, in trade practices, in financial operations, and in governmental regulation and taxation.

(RATHBUN)
Autumn, 38; winter, 37; spring, 30

PROFESSIONAL COURSES

First-Year Courses

[In courses announced as running through more than one quarter a single final examination will be given at the end of the course and credit will be deferred until that time. Successful completion of all first-year courses is required for the law degree.]

201. Introduction to Law.—The primary purpose of this course is to present the historical background and development of law and legal institu-

tions necessary to a proper study of other substantive law courses. To this end consideration is given to an outline of the historical development of English and American courts and procedure, common law and equity. Special emphasis is placed on the formulary system of actions and the elements of common law pleading. A detailed study, by the case method, of the principal common law actions is made. Cook and Hinton, *Cases on Common Law Pleading,* syllabus and selected cases.

3 units, autumn quarter (OSBORNE)
Autumn, 81

202. Contracts I.—Mutual assent, including offer and acceptance; contracts under seal; statute of frauds; consideration; beneficiaries; assignees; joint and several contracts; illegality; impossibility. The quasi-contractual rights, if any, which arise when contract rights are lacking, are studied. Williston, *Cases on Contracts* (2d ed.), Thurston, *Cases on Quasi-Contracts,* and selected cases.

3 units, autumn, winter, and spring quarters (WHITTIER)
9 units, summer quarter (KENT)
Autumn, 72; winter, 67; spring, 62; summer, 21

203. Torts.—Principles of tort liability as developed in the action of trespass; justification and excuse; negligence as a basis of liability; common law and statutory duties of care; legal cause; contributory negligence; absolute liability; deceit; defamation; malicious prosecution and abuse of process; interference with social and business relations, unfair competition, combinations, strikes, boycotts. Ames and Smith, *Cases on Torts* (Pound's ed.) and selected cases.

3 units, autumn, winter, and spring quarters (CATHCART)
Autumn, 82; winter, 78; spring, 72

204. Criminal Law.—Nature and sources of criminal law; crime as an act; attempts; criminal intent; circumstances affecting illegality of act; specific offenses; crimes against the person, larceny and allied offenses, crimes against the dwelling house, conspiracy. Mikell, *Cases on Criminal Law* (2d ed.).

3 units, autumn and winter quarters (VERNIER)
Autumn, 80; winter, 76

205. Personal Property.—Possession: nature, importance, and legal effect. Possessory interests arising from: tenancy, bailment, lawful seizure. Rights of a finder. Possession without right. Certain methods of acquiring title to chattels; statutes of limitations; gifts *inter vivos;* accession; confusion, etc. Liens and pledges. Conversion. Warren, *Cases on Property* (abridged ed.).

4 units, spring quarter (OSBORNE)
4 units, summer quarter (SIMES)
Spring, 56; summer, 20

206. Real Property.—Tenure; estates in land with reference to: quantity, absolute and qualified character, time of enjoyment, number and connection of owners, creation and transfer, uses, marital interests. Acquisition of title by adverse possession, prescription, accretion. Natural rights; profits, easements, licenses. Aigler, *Cases on Titles;* Bigelow, *Cases on Rights in Land* (with Introduction), and selected cases.

4 units, winter quarter; 2 units, spring quarter (KIRKWOOD)
Winter, 79; spring, 72

SECOND- AND THIRD-YEAR COURSES

225. Contracts II.—Express conditions; defenses arising from breach of implied conditions, prevention, incapacitation, repudiation; excuses for nonperformance of conditions; anticipatory breach; discharge of contracts. The

quasi-contractual rights related to the above topics and some other matters in quasi-contracts are studied. Williston, *Cases on Contracts* (2d ed.), and selected cases.

5 units, autumn quarter (WHITTIER)
Autumn, 50

226. Insurance.—Marine, fire, and life insurance. Insurable interests in various kinds of policies; concealments; misrepresentations; warranties and other matters affecting the validity of the contract; amount of recovery; subrogation; waiver, estoppel, election; powers of agents; assignees and beneficiaries. Vance, *Cases on Insurance.*

4 units (———) [Not given in 1929–30]

227. Sales.—Subject-matter of the contract; transfer of property and title; destruction of the goods and risk of loss; obligations of seller and buyer; rights of unpaid seller against the goods, remedies of the seller on the contract; remedies of the buyer on the contract. Woodward, *Cases on Sales* (2d ed.).

6 units, autumn quarter (VERNIER)
Autumn, 29

228. Bills and Notes.—Negotiability; form and inception, form of bill and of note, acceptance, delivery, consideration, negotiation, transfer, holder in due course; liability of parties, maker and acceptor, drawer and indorser, transferor; discharge; effect of the Negotiable Instruments Law. Britton, *Cases on Bills and Notes.*

3 units, winter and spring quarters (VERNIER)
Winter, 40; spring, 40

229. Security.—A study of the various security devices including mortgages, both real and personal, conditional sales of chattels, and trust receipts; liens and pledges of personal property, mechanics' liens, suretyship and guaranty. Case book to be announced.

4 units, autumn and winter quarters (OSBORNE)
Autumn, 46; winter, 44

231. Bankruptcy.—Who may be a bankrupt; who may be petitioning creditors; acts of bankruptcy; what property passes to the trustee; provable claims; duties and powers of the bankrupt and his trustee; protection, exemptions, and discharge. Williston, *Cases on Bankruptcy.*

4 units, summer quarter, first half (8 recitations weekly) (OSBORNE)
Summer, 15

232. Partnership.—Nature of a partnership, its purposes, and members; creation of partnerships; nature of partner's interest; firm name and goodwill; mutual rights and duties of partners; actions between partners, at law and in equity; powers of partners; liability for acts of partners in contract and tort; general liability of partners; dissolution and notice; consequences of dissolution; dissolution agreements respecting debts; distribution of assets to creditors, and between partners; limited partnerships. Case book to be announced.

4 units, autumn quarter (NIELSON)
4 units, summer quarter, second half (8 recitations weekly) (OWENS)
Autumn, 14; summer, 11

233. Private Corporations.—The nature of a corporation; promotion of corporations; corporate powers; corporate liability for torts and crimes; unauthorized corporate action, including doctrines of *de facto* corporations, and *ultra vires* acts; officers, stockholders, and creditors of corporations; reorganization of corporations. Warren, *Cases on Corporations* (2d ed.).

3 units, winter and spring quarters (NIELSON)
Winter, 49; spring, 48

234. Admiralty.—The principles of admiralty and maritime law, as applied in the United States; the scope and subject-matter of admiralty jurisdiction; effect of state law; maritime liens; rights of maritime workers; carriage of goods; charter parties; salvage; general average; collision; limitation of liability. Lord and Sprague, *Cases on Admiralty,* and selected cases.
4 units, winter quarter (MORRISON)
Winter, 11

235. Agency.—Nature of the relation; appointment; liability of principle for agent's torts and contracts; liability of agent to third parties; principal's duties to agent, including workmen's compensation legislation; delegation; undisclosed principal; termination; ratification. Wambaugh, *Cases on Agency* (2d ed.), and selected cases.
3 units, winter and spring quarters (TURRENTINE)
Winter, 23; spring, 22

240. Conveyancing.—Execution of deeds; description of property conveyed; creation of incorporeal interests, rents; covenants as to use and as to title; estoppel by deed; priorities. Aigler, *Cases on Title to Land;* Bigelow, *Cases on Rights in Land.*
5 units, spring quarter (KIRKWOOD)
Spring, 27

241. Wills.—Devolution of property of a decedent by intestate succession. The nature of wills and testaments. Probate and its effect. Testamentary capacity. Testamentary intent. Effect of fraud, undue influence, or mistake on the validity of a will. Formalities essential to execution of a valid will. Incorporation by reference. Nullification of wills by (1) revocation; (2) ademption or lapse of legacies or devises; (3) by other circumstances. Republication of wills. Prerequisite: Law 206, Real Property. Gray, *Cases on Property,* Vol. IV (2d ed.), and selected cases.
4 units, autumn quarter (TURRENTINE)
Autumn, 42

242. Future Interests.—Classification of future interests: rights of entry for condition broken; escheat and possibilities of reverter; reversions, vested remainders and executory interests; contingent remainders; limitations to classes; freehold interests subject to a term; rule in Shelley's Case; future interests in personal property; construction of limitations; powers; the rule against perpetuities; illegal conditions and restraints on alienation. Prerequisite: Law 206, Real Property. Kales, *Cases on Future Interests.*
2 units, winter quarter; 3 units, spring quarter (TURRENTINE)
5 units, summer quarter (SIMES)
Winter, 11; spring, 10; summer, 4

243. Water Rights.—An intensive study of water rights in the Western States. Extent of riparian rights and liberties; the law of prior appropriation; relative priorities of riparian and non-riparian rights and liberties of use; extinguishment of riparian rights; rights in diffused and underground waters; rights in interstate streams; federal and state powers of control. Prerequisite: Law 206, Real Property. Bingham, *Cases on Water Rights.*
4 units, autumn quarter (BINGHAM)
4 units, summer quarter, second half (8 recitations weekly) (BINGHAM)
Autumn, 14; summer, 6

244. Mining Law.—A course on mining titles under the federal mining acts, with especial reference to mining rights in the Western States and Alaska. Prerequisite: Law 206, Real Property. Costigan, *Cases on Mining Law.*
4 units (BINGHAM) [Not given in 1929–30]

246. Equity.—I. The general nature and scope of Equity—Injunctions: historical introduction; the powers of courts of equity; principles governing the exercise of equitable powers. II. Specific performance of contracts: general scope of the remedy; fulfillment of conditions, express and implied; part performance and the Statute of Frauds; equitable conversion by contract; misrepresentation, mistake, and hardship as defenses to specific performance. Cook, *Cases on Equity* (one volume edition).
3 units, autumn and winter quarters (KIRKWOOD)
Autumn, 29; winter, 27

246a. Equity.—Historical introduction; specific performance of contracts; general scope of the remedy; fulfillment of conditions, express and implied; part performance and the Statute of Frauds; equitable conversion by contract; misrepresentation, mistake, and hardship as defenses to specific performance. Cook, *Cases on Equity* (one volume edition).
4 units, summer quarter, first half (8 recitations weekly) (NOTTELMANN)
Summer, 18

247. Trusts.—The Anglo-American system of uses and trusts. Nature of a trust; other sorts of interests and relations distinguished; the creation, transfer, and extinguishment of trust interests, express, resulting, and constructive; validity of trusts; effect of statutes; charitable trusts; priorities and relative validity of competing equities; importance of the legal title to one claiming adversely to a trust or other equitable interest; remedies of creditors against the trust property; duties of the trustee. Prerequisite: Law 246, Equity. Scott, *Cases on Trusts.*
3 units, winter and spring quarters (BINGHAM)
Winter, 24; spring, 23

250. Code Pleading.—The civil action; splitting and joining actions; the complaint, including the caption, the statement of facts, and the prayer for relief; the answer, including general and specific denials, affirmative defenses and counterclaims; the demurrer; the reply; motions; bills of particulars; amendment and aider; construction of pleadings. Selected cases.
4 units, spring quarter (CATHCART)
4 units, summer quarter, second half (8 recitations weekly) (HOWELL)
Spring, 46; summer, 8

251. Evidence I.—This course deals with certain procedural and substantive law topics commonly considered in connection with evidence though not strictly a part of that subject. They are: judicial notice; functions of court and jury; presumptions; burden of proof; the parol evidence rule including construction of instruments. Thayer, *Cases on Evidence* (Maguire's ed.)
3 units, autumn quarter (NIELSON)
Autumn, 18

252. Evidence II.—Introductory topics; witnesses including competency, privilege, examination, impeachment, and rehabilitation; conjectural evidence; character evidence; hearsay and the exceptions to its exclusion; opinion; real evidence; proof of execution of writings; the "best evidence" rule. Thayer, *Cases on Evidence* (Maguire's ed.), and selected cases.
3 units, winter and spring quarters (WHITTIER)
Winter, 53; spring, 51

251a–252a. Evidence.—Judicial notice; functions of court and jury; presumptions; burden of proof. Witnesses, including competency, privilege, examination, impeachment, and rehabilitation; conjectural evidence; character evidence; hearsay and the exceptions to its exclusion; opinion; real evi-

dence; proof of execution of writings, the "best evidence" rule. Thayer, *Cases on Evidence* (Maguire's ed.).
8 units, summer quarter (MORGAN)
Summer, 18

253. Practice.—Procedural problems confronting the lawyer in the commencement and prosecution of civil actions, omitting the subjects of pleading and evidence. The problems are studied as nearly as possible in the order in which they arise in practice. A Court is organized at the beginning of the course in which students are given practice in the institution and conduct of civil actions, including preparation and service of pleadings, summons, notices, etc.; writs, the making of motions; argument on law and motion matters, setting case for trial, and trial of case before a jury; appeal. Probate and administration proceedings in an estate are also conducted. In connection with the development of the proceedings in Court the following subjects are studied: necessity for a cause of action, statutes of limitation; parties to actions, venue; jurisdiction; methods of obtaining judgments without formal action in court; process; appearance; provisional remedies; motions; trial; verdict; judgment; execution; costs; new trial; appeal. Owens, *Forms and Suggestions for California Practice.*
3 units, autumn, winter, and spring quarters (OWENS)
Autumn, 51; winter, 46; spring, 40

254. Legal Ethics.—History of the legal profession; the lawyer's qualifications; admission and discipline of lawyers; ethical duties of the lawyer to the courts, the public, clients, etc.
2 units, autumn quarter (TURRENTINE)
Autumn, 18

255. Damages.—Respective functions of court and jury in estimating damages; exemplary, liquidated, nominal, direct, and consequential damages; avoidable consequences; counsel fees; certainty, compensation, damages for non-pecuniary injuries; values; interest; and damages in certain actions of tort and contract. Beale, *Cases on Damages.*
3 units, spring quarter (NIELSON)
Spring, 15

256. Persons and Domestic Relations.—Infants; period of infancy; infants' contracts and conveyances, torts, and crimes. Husband and wife; rights of husband as to wife's property; rights of each as to earnings, services, and society of the other; husband's interest in damages for tort to wife; husband's liability for torts or contracts of wife; husband's duty to support wife and wife's authority to bind husband by her contracts; married women's contracts, conveyances, and devises; estoppel of married women; liability of married women for torts and responsibility for crimes; contracts, conveyances, and suits between husband and wife; husband's right to custody of wife. Marriage: promise to marry and breach; marriage as a contract or relation; annulment; divorce; separation. Woodruff, *Cases on Domestic Relations* (3d ed.).
4 units, summer quarter, first half (8 recitations weekly) (VERNIER)
Summer, 16

257. Private International Law (Conflict of Laws).—A study of the influence which considerations of the jurisdiction of a state and considerations of foreign law have upon the decisions of courts in cases involving events or things or persons under foreign jurisdiction. The study includes particularly questions of the jurisdiction of states and of courts, of the effects of foreign judgments and decrees, of legal domicile, of divorce, and of actions for foreign wrongs; property interests, decedent's estates, torts,

legal capacity, marriage, marital interests, and contracts. Beale, *Cases on Conflict of Laws* (larger edition).
3 units, autumn and winter quarters (BINGHAM)
Autumn, 37; winter, 37

270. Public International Law.—Nature of International Law; its relation to Municipal Law. International relations in time of peace; recognition and classification of states; jurisdiction on land and on the high seas; acquisition and transfer of jurisdiction; non-belligerent settlement of international controversies. International relations as modified by war; effect of war as between enemies; relations between belligerents and neutrals. Open to students in other departments on petition. Case book to be announced.
3 units, autumn quarter (MORRISON)
Autumn, 13

271. Constitutional Law I.—Preliminary topics: making and changing constitutions; functions of judiciary in enforcing constitutions; separation and delegation of powers; inter-governmental relations. Political rights. Personal and religious liberty. The Fourteenth Amendment: operation in securing civil rights; due process and equal protection of law as limitations upon procedure, police power, and taxation. In considering the police power somewhat special attention is given to public utility rate regulation. Hall, *Cases on Constitutional Law* (with supplement, 1926).
4 units, autumn quarter (CATHCART)
Autumn, 34

272. Constitutional Law II.—Protection to persons accused of crime; retroactive laws in civil cases; state laws impairing obligation of contracts; eminent domain. General scope of federal powers; foreign relations, Indians and aliens; territories, dependencies, and new states. Regulation of commerce: duties on imports, exports, and tonnage; interstate and foreign commerce; state legislation affecting national commerce; power of Congress; federal maritime authority. In connection with the power of Congress over commerce and as illustration of its extent some of the more important federal regulation statutes and especially the Sherman Anti-Trust Act are studied. Hall, *Cases on Constitutional Law* (with supplement, 1926); also selected cases.
4 units, winter quarter (CATHCART)
Winter, 29

273. Public Utilities.—The regulation and control of common carriers and other public service callings; entry and withdrawal; self-service and collateral business; duty to serve; adequacy and equality of service; dependent and connecting service; liability; limitation of liability. Smith and Dowling, *Cases on Public Utilities.*
3 units, winter and spring quarters (MORRISON)
Winter, 14; spring, 13

274. Municipal Corporations.—Nature; creation, alteration, and dissolution; legislative control; internal organization; powers; liability on contract and for torts; remedies. Case book to be announced.
4 units, autumn quarter (MORRISON)
Autumn, 23

275. Taxation.—This course deals with the legal aspects of taxation, including jurisdiction to tax; personal, property, excise, inheritance, and income taxes; assessment; exemptions; obligation of a tax; remedies for illegal taxation. Beale, *Cases on Taxation,* and federal income tax regulations.
4 units, spring quarter (MORRISON)
Spring, 20

276. Administrative Law.—This course is designed to give advanced students a general survey of the field of Administrative Law. The principles considered, with special emphasis on their application to practical modern problems, are: separation and delegation of powers; validity and effect of administrative regulations and quasi-judicial determinations; jurisdiction and conclusiveness; administrative discretion; relief against administrative action, compensatory and specific, against public officers and the state; the extraordinary legal remedies and equitable jurisdiction in public law. Freund, *Cases on Administrative Law,* and selected cases.

4 units [Not given in 1929–30]

280. Problems in Administrative Law.—This course is conducted as a seminar and consists of an intensive study of some phase of administrative law. Its sole aim is to give properly prepared students opportunity to do on their own initiative a constructive and original piece of research. The work is open only to a limited number of advanced students who have had or are taking the course in Administrative Law.

Winter and spring quarters [Not given in 1929–30]

282. Problems in Administration of Civil Justice.—Individual study of special problems and written reports upon them under instructor's supervision; group discussions and individual consultations. Problems are chosen by students with instructor's assent from such fields as: court organization; special courts; selection, tenure, and compensation of judges; functioning of the bar; reform of the jury, of pleading, of the rules of evidence, of trial and appellate procedure; costs; legal aid; arbitration and conciliation; proper control of procedure; uniformity; the history of procedure. Open to law graduates and to third-year law students by consent of the instructor.

Autumn and spring quarters (WHITTIER) By arrangement

Autumn, 2; spring, 2

283. Problems in Administration of Criminal Justice.—Individual study of one or more problems in the general field of criminal law. Problems to be selected, with approval of the instructor, from such fields as: aliens, immigration, appeals, bail, capital punishment, child labor, classification of crimes, confessions, "third degree," corporal punishment, courts, problems of substantive law, such as insanity, self-defense, etc., causes of crime, prevention of crime, detection of crime, drug addiction, drunkenness, eugenics, experts, extradition, grand jury, heredity, homicide, indeterminate sentence, indictment, jails, former jeopardy, jury, juvenile courts, justice of peace, lynching, negroes, moving pictures, parole, penal farms, police, prison aid, prisons and reformatories, probation, procedure, prosecuting attorney, prostitution, psychology, psychopathic laboratories, public defender, recidivists, statistics, statutes, sterilization, suicide, surveys, etc. The course is designed to offer the student an opportunity to do independent work of a research character. Weekly consultation for reports and guidance. Final written report. Open to law graduates and to well-prepared third-year law students by consent of instructor.

Winter quarter (VERNIER)

Winter, 1

284. Problems in Practice.—Special problems not covered in the regular course in Practice are worked out by the student under the guidance of the instructor. The time assigned for class work is devoted to group and individual consultations. While in general the problems are assigned by the instructor, students may submit problems they may be particularly interested in, and, if approved, may devote their time to their development.

Autumn, winter, and spring quarters (OWENS) [Not given in 1929–30]

285. Principles of the Roman and Modern Civil Law.—A consideration of some of the important principles and conceptions of the Roman Law and modern Civil Law systems as contrasted with those of the Common Law. Reading material to be announced.
2 units, winter and spring quarters (OSBORNE) [Not given in 1929–30]

286. Jurisprudence.—Nature and purpose of jurisprudence; schools of jurisprudence; the end of law; its nature; its sources, forms, and modes of growth; its scope and subject-matter; analysis of fundamental legal conceptions; critique of existing law. Assigned readings.
Autumn, winter, and spring quarters (BINGHAM) [Not given in 1929–30]

EXTRA COURSES

Legal Bibliography and Brief Making.
1 unit, autumn quarter (WELLER)
Autumn, 25

Moot Court.
1 unit, winter quarter (RATHBUN)
Winter, 6

Patent Law.
Spring quarter (LYON) [In alternate years; given in 1929–30]

Special Topics in Practice.
Spring quarter (HILL)

SCHOOL OF LETTERS

HARDIN CRAIG, Professor of English, *Chairman of the Council*
SAMUEL SWAYZE SEWARD, JR., Associate Professor of English, *Secretary of the Council*

ORGANIZATION

The School of Letters includes the following departments and subjects: Classical Literature, English, Germanic Languages, Romanic Languages, and Slavic.

The School is administered through the Council of the School of Letters, composed of those members of the staff of instruction who are also members of the Academic Council.

THE BACHELOR'S DEGREE

High-school students looking forward to entering the School of Letters are urged to begin as early as possible the study of one ancient and one modern language and also to consult the Chairman of the School, either personally or by letter, at any time, with regard to meeting the conditions for entrance.

Students who have completed the work of the Lower Division and propose to make language and literature the principal element in their program for the junior and senior years may, upon furnishing satisfactory evidence of their fitness to do such work, be enrolled as candidates for the Bachelor's degree. Two plans of study are offered.

I. Those who plan to specialize will ordinarily elect one of the constituent departments in which to do their major work. Such students should consult the announcement of the department in question for prerequisites and requirements. On registration day they will present their credentials to the executive head of the department, or his representative, and will, if accepted as candidates, make out and file, with his approval, a list of studies for the ensuing quarter. On satisfactory completion of the requirements laid down in the announcement of the chosen department, these students will be recommended for the degree of Bachelor of Arts in, for example, English.

II. Students who prefer to range over a somewhat wider field of studies will be permitted, if duly qualified, to enroll as candidates for the degree of Bachelor of Arts in the School of Letters. Applicants for such candidacy will present their credentials to the Chairman of the Council for his approval, on registration day. They must possess a reading knowledge of one ancient and one modern language represented in the School. In the case of one of these languages the fulfillment of the requirement may be postponed until after entrance into the School, provided that the applicant possesses a reading knowledge of two ancient or two modern languages. Thus, an applicant who offers, for example, either (*a*) French and German, or (*b*) Greek and Latin, can satisfy the requirements for graduation as outlined below, by electing (*a*) English, French, and German, or (*b*) English, Greek, and Latin, but must in addition acquire a reading knowledge of one ancient or one modern language, as the case may be, before the end of the senior year. Successful applicants will enroll with the Chairman, choose an adviser from among the members of the Council, communicate such choice in writing to the Chairman, and file with him a copy of a program of studies bearing the adviser's endorsement.

Candidates for the degree of Bachelor of Arts in the School of Letters will elect one of the two following schemes of study, either of which, when satisfactorily completed, will entitle the applicant to recommendation for the degree:

A. The student carries on work in a group of at least three literatures represented in the School, attending courses and meeting such tests as are imposed upon all who seek credit for such courses. Thirty units of such credit are required in one literature and fifteen units in each of two others. Only Upper Division courses will be accepted in fulfillment of this requirement, and in these courses only such work will receive credit as involves a reading knowledge of the languages concerned.

B. As an alternative to the course outlined above, students may take the degree of Bachelor of Arts by fulfilling the following requirements:

1. Two years' residence as Upper Division students.
2. At least 30 units of work in courses (freely elected).
3. Passing the following examinations:

a) Language examinations.—Examinations (1) in either Greek or Latin, (2) in one modern foreign language. These examinations are on books previously designated and on "unseens." They will test the student's ability to translate accurately and elegantly, and to interpret the passages given. The credit value of these examinations is twenty-four units. The following books have been designated for the language examinations for the academic year, 1929–30:

Greek: Plato's *Apology;* Homer, *Odyssey,* Books X–XII.

Latin: Horace, *Odes,* Book III; Livy, Book XXI.

French: Molière, *Tartuffe;* Voltaire, *Siècle de Louis XIV;* Flaubert, *Madame Bovary.*

German: Goethe, *Faust,* Part I; Scheffel, *Ekkehard;* Thomas Mann, *Buddenbrooks.*

Italian: Dante, *Inferno;* Foggazzaro, *Il Piccolo Mondo Antico.*

Russian: Pushkin, *The Captain's Daughter,* 1–3; Lermontov, *The Demon;* Tolstoy, *Prose* (Kegan Paul's Russian Texts).

Spanish: Cervantes, *Don Quixote,* Part I; Echegaray, *El Gran Galeoto.*

b) Examination in literature.—Examinations on the history and literature of some well-marked period, such as English literature under Elizabeth. The credit value of these examinations is twenty-four units.

c) Special papers.—Essays on three authors, one ancient, and two modern, of whom only one shall be English. For the preparation of one of these essays the student will be given at least a month's time; the subjects of the other two will not be given out until three days before the essays are due. A list of the authors chosen must be approved at least one quarter before the examination is taken. The combined credit value of these papers is twelve units.

By the end of his junior year the candidate is expected to have completed enough work (either in courses or by passing examinations) to secure senior standing.

The examining committee will grade the candidates' papers in the usual way and submit the grades to the Registrar's Office. Students taking the degree by examination may receive graduation honors.

Most of the work of preparation for the examinations can be carried on in connection with courses, by doing special reading, submitting essays, etc.; but it should be clearly understood that the examinations are on *subjects,* not courses, and may involve matters not discussed in any course. Further

information describing the examinations in greater detail may be obtained from the Chairman of the School.

TEACHERS' CERTIFICATES

No provision is made for granting teachers' certificates in the field of Letters as distinct from the fields covered by the constituent departments. For information regarding requirements students are referred to the *Announcement of the School of Education.*

COURSES OF INSTRUCTION

Among the courses offered by the several departments it will be found that the following are general in nature, dealing with more than a single language and literature. For detailed information regarding these courses, consult the departmental announcements.

General Linguistics

Phonetics and General Linguistics.—Romanic Languages E201.

Gothic.—Germanic Languages 221.

Comparative Grammar of German and English.—Germanic Languages 231.

Vulgar Latin.—Classical Literature B222.

General and Comparative Literature

The Contemporary Short Story.—English 154b.

Ballads.—English 156.

The Arthurian Legends.—English 167.

Later European Drama.—English 171.

Medieval Literature, with special reference to Middle English.—English 181.

Problems and Methods of General Literature.—English 196*a, b, c.*

The Utopian Theme.—English 197.

Satire.—English 202.

Tragedy.—English 203.

Comedy.—English 204.

The Napoleonic Legend in European and American Literature.—English 206.

The Spirit of 1848 in Europe.—English 207.

The Life and Thought of the Sixteenth Century.—English 216.

Literary Criticism.—Romanic Languages A152.

French Arthurian Romances.—Romanic Languages A205.

The Romantic Movement.—Romanic Languages E202.

BIBLICAL HISTORY AND LITERATURE

David Charles Gardner, Chaplain
George A. Johnston Ross, Acting Chaplain (Winter Quarter)

The Background of Christianity.—A study of the development of the religious beliefs and ethical ideals of the Old Testament. A review of the main facts of the life of Jesus as found in the four Gospels and an analysis of the principles of Christian ethics.
2 units, spring quarter (Gardner) TTh 11
Spring, 120

5. The History of Religion.—A course of sixteen lectures on "The World's Living Religions."
2 units, winter quarter (Ross) TTh 11
Winter, 150

[New Testament Literature.—See Classical Literature C26.]

[English Bible.—See English 24.]

CLASSICAL LITERATURE

Henry Rushton Fairclough, Jefferson Elmore, Professors Emeritus

Augustus Taber Murray, Benjamin Oliver Foster, Ernest Whitney Martin, Professors
Arthur Patch McKinlay (Summer Quarter), Marbury Bladen Ogle (Winter Quarter), Acting Professors
Raymond Davis Harriman, Associate Professor
Natalie M. Gifford, Acting Assistant Professor (Summer Quarter)
Hazel Dorothy Hansen, Instructor
Helen Eva Yeomans, Assistant in Instruction

The Department of Classical Literature has for its aim the interpretation in the broadest sense of the civilizations of Greece and Rome. It accepts as major students those who desire training in Greek and Latin as a preparation for graduate work, either in this University or elsewhere, or who wish to secure teachers' certificates in the classical languages, and also those who, without intending to specialize in Greek or in Latin, wish to make their work in the University conform to the traditional arts course. The student is free to make his major work Greek or Latin at will.

Students who have had no Greek before entering the University may begin their study of the language in any quarter in introductory courses which are open to students in all departments of the University. Students who offer Greek on entrance will be registered in classes adapted to their needs.

In addition to the courses in the Greek and Latin languages, the department offers courses in Classical Literature, History, Archaeology, Art, and allied subjects, which, as indicated below, may be taken by major students as a part of their required work, but which presuppose no knowledge of the Greek and Latin languages, and are open, unless otherwise stated, to students in all departments of the University.

Graduation.—The department offers three majors with a normal requirement of forty-five credit units, as follows: (1) Classical Literature, Greek; (2) Classical Literature, Latin; and (3) Classical Literature. For the first of these the student must have completed thirty units in courses in the Greek language plus fifteen units in the general courses offered by the department (or in courses selected from both Latin and general courses); for the second, thirty units in courses in the Latin language (beyond Course B3) plus fifteen units from the general courses (or in courses selected from both Greek and general courses); and for the third, either thirty units in courses in the Greek language plus fifteen units in Latin, or thirty units in Latin plus fifteen units in Greek.

Teacher's Certificate.—The completion of the major requirements for graduation includes the department recommendation for the teacher's certificate, provided that the Teachers' Course in the language chosen has been included in the work offered. Students in other departments who wish to secure a teaching major or minor in Latin or Greek should consult some member of the department.

Advanced Degrees.—The department offers to graduate students courses leading to the degrees of Master of Arts and Doctor of Philosophy. Candidates for the Master's degree who have had the requisite undergraduate training may ordinarily receive the degree in one year on satisfactory completion of the required courses and of a thesis indicating ability to make independent use of sources. For the Doctor's degree the ability to read French and German is necessary, and the course requires a minimum of three years' work.

Candidates for the Doctor's degree may pursue their work here to advantage. The University Library is well supplied with the ordinary literature and is equipped with complete sets of virtually all the philological journals. It also possesses the Minton Warren collection of books and papers on Terence and has adequate material for the study of epigraphy and palaeography.

Attention may be called to the general courses offered in Greek and Roman History (C1–5), Greek and Roman Literature (C20–22, 24–28, 37, 38, 45, 46), and Classical Art and Archaeology (C51–55). These may be of special benefit to advanced students, who are naturally best equipped for taking advantage of them.

A. GREEK COURSES

A1. Elementary Greek.—Introduction to Greek through Attic prose. Essential forms; elements of Greek syntax; word-lists from Xenophon; writing of simple sentences; dictation; reading of easy Greek prose. MTWThF 8
5 units, each quarter (Martin, Hansen, Gifford)
Autumn, 7; winter, 4; spring, 6; summer, 1

A2. Xenophon.—Readings from the *Anabasis* with a review of Greek grammar. MWF 10
3 units, each quarter (Martin, Hansen)
Autumn, 5; winter, 5; spring, 7

A3. Attic Prose.—Reading of selected passages of simple narrative Greek. MWF 10
3 units, spring quarter (Martin)
Spring, 6

A13. Individual Work.—Students and instructors meet each week for free reading in Greek suited to the needs of the individual. By arrangement
1 to 3 units, each quarter (Martin, Hansen, Gifford)
Autumn, 3; winter, 4; summer, 4

A14. Prose Composition.—Exercises adapted to the particular needs of the individual student.
2 units, each quarter (MARTIN) By arrangement
Winter, 1

A15. Rapid Reading.—Lucian's *Vera Historia* and selected orations of Lysias. Open to those who have had A4, or an equivalent.
2 units, autumn quarter (MARTIN) [Not given in 1929–30]

A16. New Testament.—Readings from the Gospels and the Acts.
2 units, each quarter (MARTIN) [Not given in 1929–30]

A102. Plato.—Reading of the *Republic,* Books I and II; lectures.
3 units, winter quarter (MURRAY) [Not given in 1929–30]

A103. Demosthenes.—Reading of the *De Corona;* sight translation of *Æschines against Ctesiphon.*
3 units, winter quarter (MURRAY) [Not given in 1929–30]

A104. Thucydides.—Reading of Books VI and VII.
3 units (MARTIN) [Not given in 1929–30]

A104a. Introduction to Homer.—Rapid reading of selected books of the *Iliad* and *Odyssey.*
3 units, autumn and winter quarters (HANSEN) MWF 9
Autumn, 3; winter, 6

A104b. Homer (continued).—Further reading of *Iliad* and *Odyssey,* with discussions of Homeric topics.
3 units, spring quarter (HANSEN) MWF 9
Spring, 3

A105. Plato.—Reading of the *Apology* and *Crito* with a systematic review of Greek syntax.
3 units, spring quarter (MARTIN) [Not given in 1929–30]

[NOTE.—Three courses (9 or 15 units) chosen from the above with reference to the student's taste and preparation constitute the first year's work in Greek for those who have had no Greek before entering college, and may be counted toward the fulfillment of the foreign-language requirement of the Lower Division. Where possible, it is strongly urged that this work be accomplished during the first two years of residence, especially by those who plan to become Greek majors in Classical Literature.]

A111. Pausanias.—Reading of Book I and selections from other Books. Study of the Topography and Monuments of Athens, Delphi, Corinth, and Olympia.
2 units (HANSEN) [Not given in 1929–30]

A112. Later Greek Epic.—Rapid reading in the *Argonautica* of Apollonius Rhodius, and the *Posthomerica* of Quintus Smyrnæus.
2 units (HANSEN) [Not given in 1929–30]

A113. Individual Work.
3 units, autumn and spring quarters (MARTIN, HANSEN) By arrangement
Autumn, 5; spring, 7

A116. Greek Tragedy.
3 units, summer quarter (MURRAY) By arrangement
Summer, 1

A138. Greek Anthology.
3 units, spring quarter (MARTIN) M 7–9 P.M.
Spring, 4

A154. Introduction to Greek Tragedy.—Euripides' *Alcestis* and Sophocles' *Antigone.*
3 units, winter quarter (MURRAY) [Not given in 1929–30]

A155. Greek Comedy.—Selections from Aristophanes and Menander. Open to qualified students.
2 units, spring quarter (MARTIN) [Not given in 1929–30]

A158. Sophocles.
3 units, spring quarter (MARTIN) F 1–3
Spring, 3

A161. Æschylus.—Reading of *Prometheus Bound* or *Agamemnon;* lectures.
3 units, spring quarter (MURRAY) [Not given in 1929–30]

A165. Herodotus.
3 units, autumn quarter (MARTIN) M 7–9 P.M.
Autumn, 3

A166. Greek Septuagint.
3 units, winter quarter (MARTIN) M 7–9 P.M.
Winter, 5

A170. Theocritus.—Reading of the idylls in Greek and a survey of pastoral poetry in ancient and modern literature.
3 units, winter quarter (OGLE) MWF 10
Winter, 7

A200. Teachers' Course.—Lectures on methods, with practical training.
2 units, spring quarter (MARTIN) [Not given in 1929–30]

A220. Modern Greek.—Grammar (Rangabe); reading of easy texts.
2 units (HANSEN) [Not given in 1929–30]

A279. Greek Seminary.—Graduate students and advanced major students meet each week for the reading of Æschylus and the discussion of papers and reports presented by the members.
2 to 4 units, each quarter (MURRAY) By arrangement
Autumn, 4; winter, 3

A290 (B290). Thesis Work.
(MURRAY) By arrangement
Summer, 1

[From the above courses selection will be made each quarter according to the needs of the students. Precise information will be given in the schedule of courses.]

B. LATIN COURSES

B1. Introduction to Latin.—Grammar and exercises. For students who have had no Latin. May be taken (with B2–B6) in fulfillment of the foreign-language requirement of the Lower Division.
5 units, autumn quarter (YEOMANS) MTWThF 1:05
Autumn, 3

B2. Introduction to Latin (continued).—Reading of easy prose, exercises in composition, Caesar begun.
5 units, winter quarter (YEOMANS) MTWThF 1:05
Winter, 3

B3. Introduction to Latin (concluded).—Caesar's *Gallic War,* Books I–IV, or selections from the Gallic and Civil Wars; exercises in composition.
5 units, spring quarter (YEOMANS) MTWThF 1:05
Spring, 3

B4. Cicero.—Selected *Orations.* Open to students who have had two years of high-school Latin. May be taken (with B5 and B6) in fulfillment of the foreign-language requirement of the Lower Division.
3 units, autumn quarter (HARRIMAN) MWF 11
Autumn, 7

B5. Virgil.—Selected books of the *Aeneid.* Open to students who have had two years of high-school Latin.
3 units, winter quarter (HARRIMAN) MWF 11
3 units, *summer quarter (GIFFORD) MWF 1
Winter, 10; summer, 2

B6. Virgil.—A continuation of B5, but may be taken by any student who has had two years of high-school Latin.
3 units, spring quarter (HARRIMAN) MWF 11
Spring, 11

B14. Terence and Cicero.—The *Andria* of Terence and the *De Senectute* of Cicero. Open to those who have had four years of high-school Latin or have taken B4–6.
4 units, autumn quarter (FOSTER) MTWF 9
Autumn, 6

B15. Horace.—Selections from the *Odes* and *Epodes*. Open to those who have had four years of high-school Latin or have taken B4–6.
3 units, winter quarter (FOSTER) MWF 9
Winter, 7

B16. Catullus and Livy.—Open to those who have had four years of high-school Latin or have taken B4–6.
3 units, spring quarter (FOSTER) MWF 9
Spring, 7

B17. Plautus.—Menaechmi.
3 units, summer quarter (MCKINLAY) MWF 9
Summer, 4

B29. Prose Composition.—Open to those who have had four years of high-school Latin, or have taken Courses B4–6.
2 units, winter quarter (HARRIMAN) TTh 9
Winter, 5

B42. Pliny.—Selections from the *Letters*. Open to those who have had B14–16 or an equivalent.
3 units, autumn quarter (HARRIMAN) MWF 10
Autumn, 6

B43. Plautus.—Selections from the plays of Plautus. Open to those who have had B14–16 or an equivalent.
4 units, winter quarter (FOSTER) [Not given in 1929–30]

B104. Horace.—*Satires* and *Epistles*. Open to those who have had B14–16 or an equivalent.
3 units (FOSTER) [Not given in 1929–30]

B106. Tacitus.—*Histories,* Book I, *Galba, Otho,* and *Vitellius*. Open to those who have had B14–16, or an equivalent.
3 units, winter quarter (FOSTER) MWF 11
Winter, 3

B116. Lucretius.—Selections from the *De Rerum Natura,* with informal discussions of the Epicurean philosophy and the art of Lucretius.
5 units, winter quarter (FOSTER) [Not given in 1929–30]

B124. Juvenal and Martial.—The first, third, and tenth satires of Juvenal, and selected epigrams of Martial. Open to those who have had two years of college Latin.
5 units (FOSTER) [Not given in 1929–30]

B138. Apuleius.—Selections from the *Metamorphoses*.
4 units, spring quarter (FOSTER) MTWTh 11
Spring, 5

B150. Practical Exercises.
1 unit, spring quarter (FOSTER) TTh 9
Spring, 3

B151. Word Derivation.
1 unit, spring quarter (HARRIMAN) M 2:05
Spring, 7

B200. Teachers' Course.—Lectures and conferences on methods of teaching Latin. Open only to advanced students.
2 units, winter quarter (HARRIMAN) MW 2:05
Winter, 3

B203. Cicero.—Selections from the correspondence of Cicero, illustrative of the man and his age.
3 to 5 units, summer quarter (MCKINLAY) TTh 2:05–3:30
Summer, 8

B222. Vulgar Latin and Introduction to Romance Philology.—The phonology and morphology of Vulgar Latin; a study of Vulgar Latin texts of the sixth, seventh, and eighth centuries, showing the development of Latin into Romance, especially Spanish, French, and Italian.
3 units, winter quarter (HARRIMAN) TF 2:05–3:30
Winter, 6

B225. Latin Epigraphy.—Lectures, with practice in the reading of inscriptions and in the use of the Corpus. Primarily for graduate students.
2 units, winter quarter (MARTIN) [Not given in 1929–30]

B230. Latin Paleography.—The ancient and the mediaeval book, with practical exercises in the reading of facsimiles.
2 units, autumn quarter (FOSTER) MW 2
Autumn, 6

B245. Mediaeval Latin.—Reading of representative texts. Intended for both Latin students and students of English or history.
3 units (HARRIMAN) [Not given in 1929–30]

B260. Roman Comedy.
5 units, winter quarter (OGLE) MTWTh 9
Winter, 5

B278. Introduction to Textual Criticism and Interpretation.—Caesar's *Commentaries on the Gallic War* is used as the basis for various practical exercises. Open to qualified graduates.
5 units, autumn quarter (FOSTER) [Not given in 1929–30]

B279. The Third Decade of Livy.—An introduction to the study of Livy's style, with some practice in text-criticism and interpretation. Open to qualified graduates.
5 units (FOSTER) [Not given in 1929–30]

B280. Tacitus.—The second half of the *Annals* is studied with special emphasis on style. Open to qualified graduates.
5 units (FOSTER) [Not given in 1929–30]

B281. Petronius.—The *Cena Trimalchionis* and selections from other sources illustrating the colloquial Latin of the first century A.D.
5 units (HARRIMAN) [Not given in 1929–30]

B282. Propertius.—The reading of a greater part of the poems, with lectures on the development of elegy. Open to graduates and properly qualified undergraduates.
5 units, autumn quarter (FOSTER) MTWTh 11
Autumn, 8

B283. General Linguistics.—Principles of linguistic development, illustrated chiefly from Greek, Latin, English, and the Romance languages. Open to those who have some knowledge of Latin, and of one modern language other than English.
3 units (HARRIMAN) [Not given in 1929–30]

B284. Suetonius.—The *Life of Augustus* and the *Monumentum Ancyranum* are used as a basis for a study of the Augustan period.
5 units, spring quarter (HARRIMAN) MTWF 10
Spring, 3

B285. Historical Grammar of Greek and Latin.
3 units (HARRIMAN) [Not given in 1929–30]

B290 (A290). Thesis Work.
By arrangement

C. GENERAL COURSES

C1. History of Greece.—Outline course, from the earliest period to 30 B.C. Preliminary survey of the Mediterranean background. Open to all students.
3 units, autumn quarter (HANSEN) MWF 8
Autumn, 84

C5. History of Rome.—From the earliest times to the fall of the Western Empire. Development of Roman imperialism and the relation of the Empire to medieval and modern history. Open to all students.
3 units, spring quarter (HARRIMAN) MWF 8
3 units, *summer quarter (MCKINLAY) MWF 10
Spring, 48; summer, 24

C9. The Greek Heritage.—A rapid survey of various phases of Greek civilization with some reference to the survivals of Greek culture in our own life and thought.
3 units, autumn quarter (MARTIN) [Not given in 1929–30]

C13. Individual Work.—Specially qualified students will be allowed to register for directed reading of Greek authors in translation.
1 unit, autumn and *summer quarters (MARTIN, GIFFORD) By arrangement
Autumn, 1; summer, 1

C20. Greek Literature, Poets.—Lectures; reading in translations of selections from the greater Greek poets with some reference to their influence on later literature. Open to all students.
3 units, winter quarter (MARTIN) [Not given in 1929–30]

C21. Greek Literature, Poets.—(Continued.)
3 units, winter quarter (MARTIN) [Not given in 1929–30]

C22. Greek Literature, Prose Writers.—Lectures; reading in translations of selections from Herodotus, Thucydides, Xenophon, Plato, Demosthenes, Plutarch, and Lucian. Open to all students.
3 units, spring quarter (MARTIN) [Not given in 1929–30]

C24. The Greek Epic.—Lectures on the poetry of Homer, with reading of both *Iliad* and *Odyssey* in English. Open to all students.
3 units, spring quarter (MURRAY) [Not given in 1929–30]

C25. Greek Tragedy.—Lectures on the art of tragedy among the Greeks, with the study of selected plays in translation. Open to all students.
3 units, autumn quarter (MURRAY) [Not given in 1929–30]

C26. New Testament Literature.—Lectures on the origin, authorship, and characteristics of the books of the New Testament. Open to all students.
3 units, winter quarter (MURRAY) [Not given in 1929–30]

C27. Greek Masterpieces.—Lectures on the Greek spirit as expressed in various fields: (*a*) the *Odyssey;* (*b*) a Pindaric Ode; (*c*) Greek Tragedy; (*d*) the Greek temple; (*e*) the sculptured form.
3 units, summer quarter (MURRAY) [Not given in 1929–30]

C28. Ancient and Modern Tragedy.—A study of tragic themes treated both by ancient artists and those of later periods.
3 units, summer quarter (MURRAY) [Not given in 1929–30]

C29. Introduction to Plato.
3 units, summer quarter (MURRAY) By arrangement
Summer, 25

C37. Roman Literature of the Republic.—The chief poets and prose writers of republican Rome. Lectures and assigned readings in English translations. Open to all students.
2 units, winter quarter (FOSTER) TTh 10
Winter, 19

C38. Roman Literature of the Empire.—Certain of the more important writers of the Augustan and post-Augustan periods. Lectures and assigned readings in English translations. Open to all students.
2 units, spring quarter (FOSTER) [Not given in 1929–30]

C40. Herodotus.
3 units, autumn quarter (MARTIN) MWF 11
Autumn, 29

C44. Greek Myths.—The more important myths and legendary characters of early Greece are traced through Greek literature with some reference to their treatment in later literature. Lectures with assigned reading. Open to all students.
3 units, spring quarter (MARTIN) [Not given in 1929–30]

C45. Plutarch, the Greek Lives.—In English.
2 units, winter quarter (MARTIN) [Not given in 1929–30]

C46. Plutarch, the Roman Lives.—In English.
2 units, spring quarter (MARTIN) [Not given in 1929–30]

C47. Plato.
3 units, winter quarter (MARTIN) By arrangement
Winter, 41

C48. Plato.
3 units, spring quarter (MARTIN) MWF 11
Spring, 36

C51. Homeric Civilization.—Illustrated lectures on the civilization of the Bronze and Iron Ages in Greece. Open to all students.
2 units, autumn quarter (HANSEN) [Not given in 1929–30]

C52. Classical Greek Archaeology.—Illustrated lectures on Greek civilization with special reference to topography, architecture, coins, vases, etc.
3 units, winter quarter (HANSEN) [Not given in 1929–30]

C53. Greek Sculpture.—Illustrated lectures.
3 units, winter quarter (HANSEN) MWF 8
Winter, 26

C55. Roman Art and Archaeology.
3 units, autumn quarter (HARRIMAN) MWF 9
Autumn, 12

C58. Literary Tradition.
2 units, winter quarter (OGLE) TTh 11
Winter, 7

C60. Journal Club.
2 units, winter quarter (MARTIN) [Not given in 1929–30]

C65. Topography and Geography of Greece.
2 units, spring quarter (HANSEN) TTh 11
Spring, 24

ENGLISH

Melville Best Anderson, Professor Emeritus

*William Dinsmore Briggs, Hardin Craig, William Hawley Davis (Editor, University Press), †Henry David Gray, Albert Léon Guérard (General Literature), Howard Judson Hall, Arthur Garfield Kennedy, Samuel Swayze Seward, Jr., Professors

Thomas Marc Parrott (Princeton University), Martin Bronn Ruud (University of Minnesota), Elbert Nevius Sebring Thompson (University of Iowa), Acting Professors (Summer Quarter)

Edith Ronald Mirrielees, Frances Theresa Russell, Associate Professors

Percy Hazen Houston (Occidental College), Acting Associate Professor (Summer Quarter)

Margery Bailey, Assistant Professor

Curtis Edmund Avery, Harford Holmes Hays, George Henry Hinkle, John McClelland, Arthur Yvor Winters, Instructors

Mary Yost (Dean of Women), Lecturer

Alice Cecilia Cooper (Modesto Junior College), Lecturer (Summer Quarter)

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS

1. The courses ordinarily prescribed in the major subject include the Historical Background for English Literature (to be taken if possible before the junior year), Chaucer, Shakespeare (Courses 25 and 159), the advanced courses (181, 182, 183, 184, 185) in the history of English literature (five quarters), and an advanced course in Spenser, Milton, Wordsworth, or Browning, besides such preliminary courses in composition, vocal expression, or literature as may be advised in individual cases. In the advanced courses in English literature one of the two following substitutions may be made upon advice: (*a*) for Course 182, the course in Elizabethan Drama (170); or (*b*) for Course 183, the course in Modern English Fiction (168). (For the requirements in the case of students making English and Public Speaking their major subject, see below under the Division of Public Speaking.)

2. Each student is required also to pursue work in one foreign language and literature sufficiently to obtain (*a*) a practical reading knowledge of the language, and (*b*) some acquaintance with its most important literature. Students should be sure that their language studies are so planned as to accomplish these ends. The requirement is not primarily a matter of formal credit-hours, but ordinarily demands a minimum of 24 units of college work, aside from elementary courses (two years in the high school or one in the university). Introductory courses in Latin and Greek, if pursued in the university, will be counted as college work. Those who make Latin or Greek their principal language are advised, in general, to include two years of work in a modern language among their elective studies; and those who have chosen a modern language are encouraged to include among their elections two years of work in Latin or Greek.

Certain courses (such as 21 and 168, 14, 23, and 27), which cover more

* Absent on leave, autumn, winter, and spring quarters, 1929–30.
† Absent on leave, 1929–30.

or less of the same ground, may not be elected by the same student without consultation with the instructors.

Students in junior colleges, who expect to transfer to the Upper Division as English majors, are advised while in junior college to pursue the study of a foreign language and to take an elementary survey course in Shakespeare.

Lower Division students who plan to work in English under the Independent Study Plan should consult the major department early for detailed requirements.

GENERAL AND COMPARATIVE LITERATURE

Besides courses in English and American literature the English department offers courses in general literature, as follows: 15, 24, 139, 167, 169, 171, 196*a*, 196*b*, 196*c*, 197, 203, 204, 206, 207, 208. In these courses the language of instruction is English, and the reading may be done in English. But the field of study is not limited by linguistic or national boundaries. It comprises: (1) literary problems of a general character, (2) the mutual influences of national literatures, and (3) masterpieces of world literature. The following courses, given in English by other departments, afford a survey of world literature: Classical Literature courses in Group C; Germanic Languages 91; Romanic Languages C140, C150, E202; Slavic Literature C1, C100, C101, C102, C103, C104, C105.

THE TEACHER'S RECOMMENDATION

Students wishing to obtain certificates entitling them to teach in the junior high schools or the high schools of California should consult the *Announcement of the School of Education*. In that pamphlet are set forth not only the general requirements laid down by the State Board of Education, but also the specific requirements on the basis of which properly qualified students may apply for the recommendation in English, as a major or a minor subject.

ADVANCED DEGREES

Eligibility.—Anyone may enter upon graduate work at Stanford University, with the intention of becoming a candidate for a higher degree in English, who has received a Bachelor's degree from any college or university of accredited standing. But it is not advisable for a student whose undergraduate work has not included a thorough training in English to undertake graduate work in this department, unless he is prepared to give more than the minimum time of residence. By "a thorough training in English" is meant the equivalent of the requirements for the degree of Bachelor of Arts in English at Stanford. See below under "Examinations."

Time of Residence.—Three quarters of full-time work at Stanford, or the equivalent in part-time work during a longer period, are required for the degree of Master of Arts.

Three years of full-time work or their equivalent are the minimum required for the degree of Doctor of Philosophy. Of these, one full year other than the first must be at this University. Candidates not specially well prepared should expect to spend more than the minimum period of three years in order to obtain the Doctorate in English.

While no definite number of units is required of graduate students, twelve or thirteen units per quarter is regarded as constituting a normal amount of work. The nature of the courses selected will determine the

number of courses which it will be advisable to choose. Not less than two-thirds of the courses taken must be graduate courses in the English Department. The remaining third may consist of graduate or of Upper Division courses in any department, subject to the approval of the major professor. A graduate student registered in any English course numbered between 100 and 190 must, if the course is to be counted as a graduate course, be assigned by the instructor additional work of a genuinely graduate character.

Except under extraordinary circumstances, it is not possible to secure both the Teacher's Recommendation and the degree of Master of Arts in one year of graduate study. The courses required by the School of Education make it impossible to devote the necessary proportion of time to English. But in some cases, where certain requirements of the School of Education have been met in advance, it has been found possible to secure the Master's degree by an additional quarter of study. The summer quarter provides for such students the opportunity for securing both the Master's degree and the Teacher's Recommendation.

Language Requirements.—A candidate for the degree of Master of Arts must have an elementary knowledge of Old English, which can be secured by electing the course in Old English while at Stanford, and a reading knowledge of two foreign languages (preferably one ancient and one modern).

A candidate for the degree of Doctor of Philosophy must have a reading knowledge of Latin, German, and French adequate for the accurate comprehension of technical articles in the student's special field of study.

All persons looking forward to candidacy for advanced degrees in English at this University are urged to complete as much as possible of this language preparation before coming, in order to save time while on the ground, since such work is not accepted as graduate work.

Before he is eligible to take his Doctor's examination, the candidate must secure from his major professor a written statement that he has satisfied the foreign-language requirement.

Application for Candidacy.—Candidates for the degree of Master of Arts must make out, in consultation with their major professor, a program of courses constituting a full year's work. This should be done during the first four weeks of the quarter preceding that in which the degree is to be granted. In addition to the courses taken and to be taken, the application for candidacy must include the subject of the thesis.

Candidates for the degree of Doctor of Philosophy should file their application for candidacy during the year preceding that in which the degree is to be granted. This application includes the full program of the three years' study and the subject of the dissertation.

Changes in the title of the thesis or dissertation or in the program of study may be made with the consent of the major professor and the approval of the Graduate Study Committee.

Thesis or Dissertation.—The Master's thesis may not be counted for more than 9 units of credit. It must be presented in its finished form to the professor under whose direction it is written at least two weeks before the close of the term in which the degree is to be granted.

The Doctor's dissertation may be counted for the equivalent of one full year of graduate study. It must be finished and submitted at least six weeks before the close of the final quarter.

Minor Subjects.—The candidate for the degree of Master of Arts in English does not present a minor in any other department.

The candidate for the degree of Doctor of Philosophy may choose either one or two minor subjects at his discretion. Under unusual circumstances, with the approval of the department and by vote of the Graduate Study Committee, the minor subject requirement may be waived.

Examinations.—The candidate for the Master's degree must pass a written examination covering the whole field of English and American Literature. This examination will be held each quarter, and should not be taken in the quarter in which the degree is granted. A second failure to pass the examination disqualifies the candidate.

All candidates for the Doctorate must take written examinations on the history of the English language and on the history of English literature. These examinations should be taken at latest in the quarter preceding that set for the University oral examination. This last examination is set at some time not later than the eighth week of the last (academic) year of candidacy. For details regarding this examination the candidate should consult his major professor.

LOWER DIVISION COURSES

A. Elementary Composition.—A one-quarter course required of all first-year undergraduates who do not pass the matriculation test in English.
1 unit, autumn, *winter, and *spring quarters (SEWARD and OTHERS)
Autumn, 19 (2 sections); winter, 101 (4 sections); spring, 56 (4 sections)
TThS 8; MWF 9, 10, 11

[For each student in Course A, except those who meet the requirement within a short time, a fee of $10 is charged.]

2. English Composition.
a) Narration and Description.
b) Exposition.
3 units, any two quarters (SEWARD, YOST, HAYS, HINKLE, MCCLELLAND, AVERY, WINTERS) MWF 8, 9, 10, 11, 1:05; TThS 8, 9, 10
Autumn, 348 (14 sections); winter, 357 (15 sections); spring, 277 (12 sections); summer, 43 (2 sections)

[Upper Division students registered in any of the following Lower Division courses shall receive one unit less than the regular specified credit except in cases where the course is required by the Department.]

9a. American Literature.—To the Civil War.
4 units, autumn quarter (HALL) MTWF 11
Autumn, 48

9b. American Literature.—From the Civil War to the present.
3 units, winter and *summer quarters (HALL, MCCLELLAND) MWF 9
Winter, 58; summer, 14

10. English Masterpieces.—A study of representative works of important English writers. (*a*) Writers before 1780; (*b*) Writers from 1780 to the present. Not open to those who intend to major in English.
4 units, autumn, *winter, *spring, and *summer quarters (BAILEY, HAYS, HINKLE, MCCLELLAND, WINTERS) MTWTh 8, 10, 11
Autumn, 117 (2 sections); winter, 40; spring, 111 (2 sections); summer, 21

11. Introduction to Poetry.—A study of the nature, methods, and forms of poetry, with exercises in analysis and interpretation. Open to students of all departments. Courses 11 and 18 may not both be counted for credit by the same student.
4 units, autumn quarter (SEWARD) MTWTh 11
Autumn, 15

12. The Contemporary Essay.—Modern essays, English and American.
3 units, summer quarter (Russell) MWF 10
Summer, 11

13. Biography.—A study of selected biographies and memoirs.
3 units, winter quarter (Mirrielees) MWF 9
Winter, 28

14. Tennyson.—A study of portions of Tennyson's poems, illustrating the growth of his literary art; designed for and open to Lower Division students only.
4 units (Hall) [Not given in 1929–30]

15. The International Study of Literature: Introductory Course.—Its field, problems, and methods.
3 units, autumn quarter (Guérard) MWF 9
Autumn, 37

18. Types of Poetry.—An introduction to English narrative and lyric poetry considered in respect to content, form, and the nature of its appeal. Courses 11 and 18 may not both be counted for credit by the same student.
4 units (Hall) [Not given in 1929–30]

21. Victorian Novelists.—A study of the more important Victorian novelists. Courses 21, 22, and 23 are not open to students who expect to major in English. Not more than one of them may be counted toward a degree if Course 185 is also counted.
4 units, winter quarter (McClelland) MTWF 11
Winter, 97

22. Victorian Prose.—A study of the more important Victorian prose writers other than novelists. See under Course 21.
3 units (Seward) [Not given in 1929–30]

23. Nineteenth-Century Poets.—A study of the more important English poets of the period that includes Tennyson and Swinburne. See under Course 21.
3 units (Seward) [Not given in 1929–30]

24. English Bible.—Representative portions of the Old Testament studied as literature.
3 units (Gray) [Not given in 1929–30]

25. Shakespeare.—An introduction to Shakespeare, with rapid reading of most of the plays, in chronological sequence. Open to all students; continued in Course 159.
4 units, autumn and *spring quarters (Bailey, Davis) MWThF 10, MTWTh 9
Autumn, 76; spring, 51

27. Browning.—An introductory course, concerned chiefly with the shorter poems.
3 units, spring quarter (Russell) MWF 10
Spring, 34

ADVANCED COURSES

[Unless otherwise specified, the following courses are open to third-year and fourth-year students of all departments. Courses numbered between 100 and 190 may sometimes be taken by graduate students for graduate credit, provided the instructor in such a course assigns to the student in question additional work of a genuinely graduate character.]

130. Advanced Composition.—A course intermediate between the elementary and the more specialized branches of writing. Practice in various forms, with formulated criticism and illustrative reading.
4 units, autumn quarter (Russell) MTWF 11
Autumn, 28

131. Exposition.—An advanced course, intended primarily for students doing scientific and professional work. Special attention will be given to students preparing theses or other papers. Prerequisite: Course 2 or an equivalent.
3 units, autumn and *winter quarters (Hall, Seward, Hinkle) MWF 10, TTh 10
Autumn, 58; winter, 89 (2 sections)

132. Argumentation.—[See under Division of Public Speaking. The course is strongly commended to all English and other students.]

134. Dramatic Composition.—The principles of dramatic writing developed in connection with the student's own work. Enrollment limited; students must submit specimens of their work in advance.
3 units (Gray) [Not given in 1929–30]

135. Verse Writing and Prosody.—Practical exercises in lyric composition, with illustrative study of modern poets.
2 units (Seward) [Not given in 1929–30]

136. Short Story Writing.—Open only after consultation with the instructor.
4 units, winter and spring quarters (Mirrielees) MTWTh 11
Winter, 26; spring, 9

137. Essay Writing.—Preparation of magazine articles, criticisms, and papers of both informal and analytical character.
3 units (Russell) [Not given in 1929–30]

138. Narrative Writing.—Open by permission to students who have completed Course 136.
4 units (Mirrielees) By arrangement
Autumn, 3; winter, 2

139. Directed Reading.—Eight hours of reading weekly, with informal reports and discussion. The course furnishes an opportunity for students to read books which are not assigned in connection with their other courses. Open in order of application to a limited number of upper-class students from other departments; not to English major students. May not be taken for more than two quarters. Preference in registration is given to students who have not already taken the course.
2 units, autumn, *winter, and *spring quarters (Seward and Others) By arrangement
Autumn, 84 (12 sections); winter, 92 (14 sections); spring, 120 (19 sections)

140. Historical Background for English Literature.—Open to English major students.
5 units, autumn quarter (Mirrielees) MTWThF 9
Autumn, 24

154a. History of the Short Story in English.
4 units, autumn quarter (Mirrielees) MTWTh 10
Autumn, 24

154b. The Contemporary Short Story.—Prerequisite: Course 154*a*.
3 units, winter quarter (Mirrielees) MWF 10
Winter, 8

156. Ballads.—Lectures and reports on the origin, sources, and characteristics of the English and Scottish popular ballads. Class limited to sixteen.
3 units, spring quarter (Bailey) MWF 10
Spring, 12

158. Chaucer.—An elementary course, including an outline of Middle English grammar.
4 units, autumn and *summer quarters (Craig, Ruud) TWThF 10
Autumn, 29; summer, 20

159. Shakespeare.—A continuation of Course 25, devoted to a more intensive study of a few plays. Designed primarily for English major students in their third year; open to others on recommendation from Course 25.
4 units, winter quarter (Bailey) MWThF 10
Winter, 47

160. Spenser.
4 units (Briggs) [Not given in 1929–30]

161. Milton.
3 units, spring quarter (Mirrielees) MTW 9
Spring, 21

162. Wordsworth.
3 units, winter quarter (Hall) MWF 11
Winter, 16

163. Browning.—*The Ring and the Book,* with a selection from the dramas and longer poems.
3 units, summer quarter (Russell) MWF 11
Summer, 15

164. Carlyle.—A study of his essays, histories, and other works.
4 units, autumn quarter (Davis) MTWF 9
Autumn, 5

165. Emerson.—A study of his essays and poems.
3 units, winter quarter (Davis) TTh 9, W 3:30
Winter, 7

166. Elizabethan Prose Fiction.
2 units, summer quarter (Thompson) TTh 9
Summer, 7

167. The Arthurian Legends.—Their origin and literary utilization from early times to the present.
3 units, winter quarter (Davis) TTh 1:30-3
Winter, 5

168. The English Novel. — The history of English prose fiction from DeFoe to the greater novelists of the nineteenth century.
4 units (Briggs) [Not given in 1929–30]

168a. The Eighteenth Century Novel.
3 units, summer quarter (Houston) MWF 8
Summer, 10

168b. The Nineteenth Century Novel.
3 units, summer quarter (Houston) MWF 1:15
Summer, 11

169. The Contemporary Novel.—Lectures on English and American fiction, with the reading of representative novels and reports upon them. Open to third-year and fourth-year students of all departments.
4 units (Gray) [Not given in 1929–30]

170. The English Drama to 1642.—The beginnings and development of the drama are specially studied.
4 units, winter and *summer quarters (Craig, Thompson) TWThF 11
Winter, 22; summer, 11

171. Later European Drama.—A study of Ibsen and of subsequent dramatists. Open to third-year and fourth-year students of all departments.
5 units (Gray) [Not given in 1929–30]

173. Contemporary Poetry.—A survey of English and American poetry since 1890, with especial attention to the poetic revival of the present time.
3 units, spring quarter (Winters) MWF 9
Spring, 24

174. The English Essay in the Seventeenth and Eighteenth Centuries. —A study of the type, with some reading in the classic antecedents.
3 units, autumn quarter (Russell) MW 1:15–2:30
Autumn, 4

175. The English Essay in the Nineteenth Century.
3 units, spring quarter (Russell) MWF 11
Spring, 9

181. Medieval Literature, with special reference to Middle English. —The course serves as a general introduction to medieval European literature, which is studied by types: romances, histories, lyrics, legends, etc.
4 units, autumn quarter (Kennedy) MTWF 11
Autumn, 26

182. English Literature from 1557 to 1660, exclusive of the Drama.
4 units, spring quarter (Craig) TWThF 8
Spring, 37

183. English Literature from 1660 to 1780.
4 units, autumn quarter (Bailey) MWThF 8
Autumn, 53

184. English Literature from 1780 to 1832.
4 units, winter quarter (Hall) MTWF 8
Winter, 54

185. English Literature from 1832 to 1900.—Not open to those who have taken two or more of the courses in Victorian literature, 21, 22, and 23.
4 units, spring quarter (Seward) MTWTh 11
Spring, 55

186. Criticism of Recent Literature.—Practical analysis and valuation; book reviews and discussions.
3 units (Russell) [Not given in 1929–30]

187. Main Currents of Thought in Victorian Literature.
4 units, summer quarter (Parrott) TWThF 1:15
Summer, 15

189. Special Work.—Under exceptional circumstances Upper Division students may enroll for special work under the supervision of some member of the department for credit not to exceed four units a quarter.
Any quarter By arrangement
Spring, 25; summer, 2

GRADUATE AND UNDERGRADUATE COURSES

190. American Poetry.—A study of the greater American poets with especial reference to American social conditions.
4 units (Hall) [Not given in 1929–30]

191. Essay Writing.—An opportunity for the crystallizing and formulating of opinion on such subjects as education, government, recreation, art, and personal relationships.
3 units, spring quarter (Russell) MW 2–3:30
Spring, 9

192. Old English.—Elements of Old English grammar, with reading exercises.
4 units, winter quarter (Kennedy) MTWF 10
Winter, 18

194. History of English Criticism.—A study of critical theory from the Renascence to the early eighteenth century.
3 units, summer quarter (Briggs) WF 2–3:30
Summer, 13

195. Middle English Readings.—A study of the history and dialects of Middle English with readings from representative selections from the literature. Intended for students who have an elementary course in Middle English grammar, such as English 158.
4 units, winter quarter (KENNEDY) MTWF 9
Winter, 9

196a. Problems and Methods of General Literature: Literature and Civilization.—In this and in Courses 196*b* and 196*c* a reading knowledge of one or more modern Continental languages is desirable, but not indispensable.
3 units, autumn quarter (GUÉRARD) MWF 8
Autumn, 18

196b. Problems and Methods of General Literature: Types of Criticism.—[See under Course 196*a*.]
3 units, winter quarter (GUÉRARD) MWF 8
Winter, 10

196c. Problems and Methods of General Literature: The Doctrine of Art for Art's Sake.—[See under Course 196*a*.]
3 units, spring quarter (GUÉRARD) MWF 8
Spring, 14

197. The Utopian Theme.—A study of the Utopian idea and related social and political conceptions, as expressed in literature.
3 units (RUSSELL) [Not given in 1929–30]

198. The Modern English Language.—A study of usage in pronunciation, grammar, etc., in the light of the more recent history of the language.
3 units, autumn and *summer quarters (KENNEDY, RUUD) MWF 9, 8
Autumn, 35; summer, 16

199. Verse Forms.—A study of metrics and verse forms in their relation to content.
2 units, spring and *summer quarters (SEWARD, COOPER) MW 1:05, TTh 1:05
Spring, 18; summer, 28

200. The English Teacher's Equipment.—A constructive study of the problems that face the English teacher in the high school; designed as an introduction to the Teachers' Course in the subject.
(*a*) Composition. 2 units, autumn quarter (SEWARD) TTh 1:05
(*b*) Literature. 2 units, spring quarter (SEWARD) TTh 1:05
(*c*) Oral Reading. 2 units, winter quarter (BASSETT) M 2:05–4:05
Autumn, 12; winter, 14; spring, 16

GRADUATE COURSES

201. Bibliography and Methods.—An introduction to the materials and methods of advanced study in English. Recommended for all candidates for higher degrees in English. This course is open to graduate students in English only.
3 units, autumn quarter (KENNEDY) MWF 10
Autumn, 14

202. Satire.—A study of the satiric element in literature, exemplified by some particular phase selected for specialization.
4 units, summer quarter (RUSSELL) WF 3:30–5:30
Summer, 10

203. Tragedy.—A comparative study of the theory and practice of tragedy in various literatures.
4 units (GRAY) [Not given in 1929–30]

204. Comedy.—An inquiry into the nature of the comic and into its literary uses, as exemplified especially in the drama.
4 units (SEWARD) [Not given in 1929–30]

206. The Napoleonic Legend in European and American Literature.—Prerequisites are a course (in school or college) in modern European history, and a reading knowledge of at least one modern Continental language.
3 units (GUÉRARD) [Not given in 1929–30]

207. The Spirit of 1848 in Europe.—Culmination and frustration of the Romantic ideal; the new scientific-industrial era. Prerequisites as for Course 206.
3 units, winter quarter (GUÉRARD) T 1:05–3
Winter, 5

208. The Historical Spirit in Literature.—Its growth from 1700 to the present day. Prerequisites as for Course 206.
3 units, spring quarter (GUÉRARD) T 1:05–3
Spring, 3

210. Chaucer.—The minor poems, with attention to the structure and history of the works and their literary significance. Undergraduates of suitable standing in the elementary course in Chaucer will be admitted.
2 units, winter quarter (CRAIG) TTh 1:05
Winter, 5

211. Shakespeare.—An introduction to the bibliography of Shakespearean literature, the history of the text, methods of critical study, special problems, and the study of one or more plays.
4 units, autumn, winter, and summer quarters (CRAIG, PARROTT) TTh 2–4, W 7:30 P.M.
Autumn, 14; winter, 9; summer, 14

212. Problems of Victorian Literature.—A study of selected topics involving the literary background of the period.
4 units (2 autumn, 2 winter) (SEWARD) W 3–5
Autumn, 7; winter, 4

213. Milton.
3 units, summer quarter (THOMPSON) MWF 9
Summer, 26

215. Elizabethan Drama Seminary.
4 units [Not given in 1929–30]
a) Webster and Ford (GRAY)
b) Marlowe (BRIGGS)

216. The Life and Thought of the Sixteenth Century.
4 units, summer quarter (BRIGGS) TTh 2–4
Summer, 13

217. Eighteenth Century.—The romantic age, its antecedents and consequences. Students will be expected to pursue the course for two quarters, of which (*a*) should constitute the first and either (*b*) or (*c*) the second.
4 units (BAILEY, HOUSTON) MW 1:30–3, MTh 4:30–6
a) Age of the Restoration, autumn quarter
b) Age of Reason, winter and summer quarters
c) Age of Sensibility, spring quarter
Autumn, 10; winter, 4; spring, 7; summer, 13

218. Early English Seminary.—The medieval drama.
4 units, spring quarter (CRAIG) TTh 2–4
Spring, 7

220. American Colonial Literature.—A research course. Prerequisites: American history and English literature of the eighteenth century.
4 units (HALL) [Not given in 1929–30]

221. Literary Problems of the English Renaissance.
4 units (CRAIG) [Not given in 1929–30]

222. Bacon.
4 units (BRIGGS) [Not given in 1929–30]

225. History of the English Language.—A study of the earlier history of the language, and an introduction to Germanic philology. A knowledge of Old English is required.
4 units, spring quarter (KENNEDY) MTWF 9
Spring, 11

228. Beowulf.—Course 192 or equivalent is a prerequisite for this course.
4 units, spring quarter (KENNEDY) MTWF 10
Spring, 7

235. Research Course.—In this course, the student pursues a special subject of investigation under the supervision of some member of the department. Thesis work is not to be registered under this course.
Any quarter By arrangement
Autumn, 2; winter, 1; summer, 4

[**Teachers' Course in English.**—See Education 208.]

The English Review Club meets for the discussion of recent publications of interest to students of English on the second Monday of each month from 7:30 to 9 P.M. All English graduate students, members of the departmental faculty, and undergraduates doing advanced work are invited to attend the meetings.

DIVISION OF PUBLIC SPEAKING

LEE EMERSON BASSETT, Professor
ELISABETH LEE BUCKINGHAM, JAMES GORDON EMERSON, Associate Professors
HAROLD HELVENSTON, Instructor, and Acting Director of Dramatics
HARRY FREDERICK STOVER, Instructor, and Technical Director of Dramatics
VIRGIL A. ANDERSON, LELAND TAYLOR CHAPIN, VIRGINIA CLAIRE MACGREGOR, FRED AMES WELLER, SHIRLEY WILLIAMSON, Assistants in Instruction

The Division of Public Speaking offers such courses, together with personal conferences, as may help the student to gain self-control and self-reliance, to realize and use his latent resources and powers, and contribute to his usefulness as a citizen.

The courses in the Division offer instruction in the theory of argumentation and speech-making, and practice in the organization and presentation of speeches and arguments; bring the student in direct and vital contact with the thought and spirit of the best literature through the vocal rendering of it; give practical drill in the use of the voice, in phonetics and diction; provide training in stage technique and dramatics; and prepare candidates to teach the various branches of Public Speaking.

Degree of Bachelor of Arts.—The requirements for the degree of Bachelor of Arts in English–Public Speaking are the satisfactory completion of about thirty units in Public Speaking and, in addition, the following courses in English: Shakespeare (25), History of English Literature (183, 184), and three courses selected from the following list: 14, 21–23, 27 (or 163), 154*a*, 158–62, 168–71, 173–75, 181, 182, 185, 190, 192–99. Lower Division students are advised to complete, if possible, during their first year Courses 4 and 5 in Public Speaking; and during their second year Courses 7 and 119. Candidates for the degree are required to have the same reading knowledge of at least one foreign language as English major students.

Degree of Master of Arts.—Candidates for the degree of Master of Arts in English–Public Speaking must meet the general requirements for the degree in English, with the exception that graduate courses in Public Speaking may be substituted for a certain number of units in English and that theses may be prepared on subjects in the field of Public Speaking under the direction of a professor of the Division.

Students desiring the teacher's recommendation from the University as majors or minors in Public Speaking are referred to the *Annual Announcement of the School of Education.*

[NOTE.—*Undergraduate courses in Public Speaking are, with a few exceptions, open to but a limited number of students.* Lower Division students should obtain seat cards from the office of the Lower Division; Upper Division students should apply at the Division of Public Speaking on registration day. The instructor reserves the right to refuse to enroll students who do not appear at the first meeting of the class.]

LOWER DIVISION COURSES

4. Principles of Vocal Expression.—A general course in vocal training, the use of the speaking voice, the vocal interpretation of masterpieces in prose and poetry, and practice in the preparation and delivery of short speeches. Class recitations and personal conferences. Sections limited to twenty students.

3 units, autumn, *winter, and *spring quarters (BASSETT, BUCKINGHAM, ANDERSON) MWF 9, 10, TThS 9
5 units (3 units, first term), summer quarter (BUCKINGHAM, ANDERSON, MACGREGOR, WILLIAMSON) MTWThF 8, 10, 11
Autumn, 56 (3 sections); winter, 37 (2 sections); spring, 40 (2 sections); summer, 71 (3 sections)

5. Reading Aloud.—The oral rendering of various forms of literature. Particular attention is given to rhythm, time, melody, quality, and other musical elements of verse. Assignments for general class practice and for individual study and rendition. Prerequisite: Course 4 or its equivalent. Sections limited to twenty students.

3 units, autumn and *spring quarters (BUCKINGHAM) MWF 11
Autumn, 17; spring, 22

6. Practical Phonetics.—A course in the enunciation and pronunciation of the English language. Designed especially for foreign students.

1 unit, winter and spring quarters (BASSETT) T 1:05
Winter, 4; spring, 8

7. Extemporaneous Speaking.—Practice in extemporaneous speaking on subjects of the student's choice, with attention to the preparation of speech outlines. Not open to first-year students. Sections limited to eighteen students.

3 units, autumn, *winter, and *spring quarters (EMERSON, CHAPIN, ANDERSON, WELLER) MWF 8, 9, 11, TThS 10
5 units (3 units, first term), summer quarter (CHAPIN) MTWThF 8, 10
Autumn, 75 (4 sections); winter, 73 (4 sections); spring, 87 (5 sections); summer, 38 (2 sections)

8. Public Speaking.—A continuation of Course 7 with particular reference to elements of attention. Limited to eighteen students.

3 units, autumn, *winter, and *spring quarters (BASSETT, EMERSON) MWF 9, 10
Autumn, 18; winter, 18; spring, 20

UPPER DIVISION COURSES

119. Vocal Interpretation of Shakespeare.—Certain plays of Shakespeare are read with emphasis on voice quality, diction, interpretation of the

lines, and characterization. Parts are frequently assigned for individual study. Prerequisites: Courses 4 and 5. Limited to twenty students.
2 units, spring quarter (BUCKINGHAM) W 2:05–4:05
Spring, 22

121. Theatrical Workshop.—Instruction in the technical practice of the stage with particular attention to the design and construction of stage scenery, and to properties, costume, lighting, stage management, and miscellaneous phases of stage craft. Lectures and laboratory.
4 units, autumn, *winter, and *spring quarters (STOVER) TTh 1:05–3:05
5 units, summer quarter (STOVER) T 1:05–4:05, Th 1:05–3:05
Autumn, 6; winter, 17; spring, 16; summer, 13

123. History of the Theater.—A historical survey of the origin and development of the theater.
2 units [Not given in 1929–30]

125. Scenic Design.—A study of stage production from the designer's point of view with particular emphasis on the conception and execution of scenery for the various forms of the drama. Individual problems in designing settings for plays and practical work on productions in the University Theater.
2 units, spring quarter (STOVER) M 1:05–3:05
3 units, summer quarter (STOVER) M 1:05–3:05, Th 3:05–4:05
Spring, 12; summer, 5

132. Argumentation.—The theory of argumentation, with practice in the preparation of briefs and in the writing of arguments, together with a critical analysis of argumentative masterpieces. Open to all students who have made a satisfactory grade in English 2.
3 units, autumn quarter (EMERSON) MWF 9
3 units, *summer quarter (CHAPIN) MWF 8
Autumn, 13; summer, 7

133. Public Discussion.—Individual and group discussion of topics of current public interest. Open to juniors and seniors who have completed Courses 7 and 8.
3 units, spring quarter (EMERSON) MWF 11
Spring, 11

149. Voice Training.—Lectures on the voice, with class exercises. Limited to majors and minors in Public Speaking.
2 units, autumn quarter (BASSETT, BUCKINGHAM) MWF 2:05–3:05
Autumn, 22

151. Reading Aloud (advanced).—A course in the preparation of poems, stories, and scenes from novels and plays suitable for public presentation. Prerequisites: Courses 4 and 5.
2 units, spring quarter (BASSETT) T 2:05–4:05
Spring, 12

152. Practical Debate.—Under supervision of the department those students who work on intercollegiate debate questions may receive credit upon satisfactory completion of the work.
1 or 2 units, any quarter except summer (EMERSON, CHAPIN) By arrangement
Autumn, 20; winter, 22; spring, 6

160. Acting: Theory and Performance.—The principles of dramatic interpretation and characterization. Problems of make-up. Study of the technique of acting by actual performance of plays in the Little Theatre.
3 units, autumn, *winter, *spring, and *summer quarters (HELVENSTON)
Autumn, 33; winter, 26; spring, 19; summer, 17 M 3:05–4:05, W 2:05–4:05

161. Stage Direction.—Emphasis upon direction of school dramatics. Aims and methods of organization. Fundamental principles of direction: casting,

rehearsal technique, performance. Students will have actual direction of plays produced by class in Acting (Course 160).
3 units, autumn, *winter, *spring, and *summer quarters (HELVENSTON)
Autumn, 7; winter, 8; spring, 5; summer, 6 M 2:05–3:05, W 2:05–4:05

200c. Teachers' Equipment in Oral Reading.—A study of the principles of expressive speech and training in reading aloud, with assignments adapted to the needs of individual members of the class.
2 units, winter quarter (BASSETT) M 2:05–4:05
3 units (2 units, first term), summer quarter (BUCKINGHAM) MWF 10
Winter, 14; summer, 13

GRADUATE COURSES

201. Experiments in Voice Production.—Tests of vocalization and audition will be made with the aid of an Edison recording machine. The work aims at individual improvement in speech. Enrollment is limited to teachers of and major students in English and Public Speaking.
1 unit, spring quarter (BUCKINGHAM) M 2:05–3:05
Spring, 8

202. The Reading of Verse.—A study of metrics, rhythms, and verse forms with particular reference to the oral reading of verse.
2 units, autumn quarter (BUCKINGHAM) T 2:05–4:05
Autumn, 5

203. Advanced Phonetics.—The sounds of English with reference to standards of pronunciation. Attention will be given to the improvement of speech of individuals and to methods and exercises for the correction of minor speech defects.
2 units, winter quarter (BASSETT) T 2:05–4:05
Winter, 10

204. Reading Tests.—Survey of the psychological tests of reading ability with practice in the use of the scales and tests of Gray, Monroe, Thorndike, and others. Primarily for teachers.
1 unit [Not given in 1929–30]

205. Problems of Proof, Seminar.—Papers and reports on such topics as the argumentative method and the scientific method; the scientific method in its relation to special fields, e.g., government and politics; modern fact-finding methods and technique; classical controversies.
2 units, winter quarter (EMERSON) By arrangement
Winter, 3

206. Organization of Speech Material.—A study of the structure of certain notable speeches, e.g., those of Burke, Webster, Phillips, Lincoln, and discussion of methods of organizing material for effective presentation.
2 units, spring quarter (BASSETT) W 2:05–4:05
Spring, 3

207. School Repertory of Literary Drama.—Study and working out of seldom performed plays of the best dramatists from Aeschylus to Ibsen for production by students in high schools and colleges.
1 unit, autumn quarter (BUCKINGHAM) M 3:05–4:05
Autumn, 5

208. Survey of Materials for Play Production.—A consideration of plays suitable for amateur production, and of the literature dealing with stage technique and dramatic presentation. Bibliography, assigned readings, class reports and discussions.
2 units, summer quarter (BUCKINGHAM) By arrangement
Summer, 11

210. Research Course.—Individual investigation of a special subject under the direction of some member of the Division. Problems of the Master's thesis are excluded.
Winter and spring quarters By arrangement
Winter, 1; spring, 2

[Teachers' Course in Oral Expression.—See Education 217.]

GERMANIC LANGUAGES

James Owen Griffin, Karl Gustav Rendtorff, Professors Emeritus
Bruno Boezinger, Associate Professor Emeritus

William Alpha Cooper, Professor
Hugo Karl Schilling (University of California), Acting Professor (Spring Quarter)
Camillo von Klenze (University of Munich, Germany), Acting Professor (Summer Quarter)
August Carl Mahr, Associate Professor
Clara Eberhard, Helena May Nye, Instructors
Stanley Louis Sharp, Anthony Eugene Sokol, Fredricka Esther Wagner, Mildred Juanita Weinsveig, Louis Paul Woerner, Assistants in Instruction

The elementary and intermediate courses listed below are designed to prepare students to read German without translation, and to express ideas in simple German prose. Those who have completed Courses 101, 102, and 103 may take any more advanced course for which, in the judgment of the instructor in charge, they are prepared. Courses 90, 91, and 95 are given entirely in English; the more advanced courses presuppose considerable facility in reading German, and most of them are conducted in German. Courses not assigned to any particular quarter, and with "by arrangement" instead of definite hours in the time schedule, will be given whenever there is sufficient demand for them.

The department accepts candidates for the degrees of Bachelor of Arts, Master of Arts, and Doctor of Philosophy, and for certification as high-school teachers. Special consideration is given to the needs of those who intend to make the teaching of German their profession.

Graduation.—Candidates for the degree of Bachelor of Arts in Germanic Languages are expected to take thirty units beyond second-year German, i.e., from courses numbered 100, 101, 102, 103, 111, and higher. Courses 1, 2, 3, 21, 22, 23, or the equivalents, should be completed before admission to the Upper Division in order to satisfy these requirements within two years.

Teacher's Recommendation.—Candidates for the Teacher's Recommendation in German as a major subject are expected to take second-year German (fifteen units) and the following: fifteen units elected from Courses 100–104, 111, and 151; two units from Courses 120–125; two units from Courses 161–167, 231; and fifteen units from Courses 170–178, 180–184, 200, 202, 221–231. Proficiency in German will be insisted upon.

Candidates for the Teacher's Recommendation in German as a minor subject are expected to take, in addition to second-year German (fifteen units), fifteen units elected from Courses 100–104, 111, 151, 161–167, 170–178, and 180–184. Proficiency in German will be insisted upon.

Advanced Degrees.—Candidates for the degree of Master of Arts in Germanic Languages are expected to take fifteen units in addition to the requirements for the degree of Bachelor of Arts, and Course 251.

Candidates for the degree of Doctor of Philosophy will need to devote at least three years to graduate study. The library facilities are sufficient, and the collection is being strengthened in all directions. The private library of the late Professor Hildebrand of Leipzig furnishes valuable material, particularly in the older literature and in lexicography. Good opportunities are offered also for advanced work in modern and especially in current literature. The files and the current numbers of the most important journals are at hand.

Library.—The department maintains, in Room 112, a special library of its own, including a collection of German textbooks, a model reference library for a high-school or junior college teacher, and a considerable number of the best known works of German literature. This collection of books is supplemented by an extensive collection of maps, wall pictures, and lantern slides (about 3,000), suited for use in teaching. The slides have been specially chosen to illustrate courses in cultural history (120–125) and literary history (170–184).

Fees.—For Courses 1, 2, and 3, First-Year German, a special university fee of $7.50 per quarter is charged, to which is added a syllabus fee of $.50.

COURSES OF INSTRUCTION

1. First-Year German.—It is the object of this course to put the learner in possession of the elements of the German language. This implies: (1) a personal command of simple German, that is, the ability to understand such German, whether heard or read, and to employ the language in simple conversation, narration, and description, both orally and in writing; (2) such a ready familiarity with the elements of German grammar as is essential for the attainment of this command of the language.

5 units, autumn and *winter quarters (Eberhard, Nye, Sharp, Wagner, Woerner) (autumn) MTWThF 8, 9, 11; (winter) MTWThF 9

Autumn, 185 (5 sections); winter, 43

2. First-Year German.—A continuation of Course 1.

5 units, winter and *spring quarters (Eberhard, Nye, Wagner, Weinsveig, Woerner) (winter) MTWThF 8, 9, 11; (spring) MTWThF 9

Winter, 159 (5 sections); spring, 39

3. First-Year German.—Beside being a continuation of Course 2, this course affords, in the autumn quarter, an opportunity for students with more than one and less than two years of high-school German to prepare themselves to take up second-year college German (Course 21) in the winter quarter.

5 units, autumn and *spring quarters (Eberhard, Sharp, Wagner, Weinsveig, Woerner) (spring) MTWThF 8, 9, 11; (autumn) MTWThF 9

Autumn, 29; spring, 137 (5 sections)

[Note.—Courses 1, 2, and 3, together, are equivalent to two years of German in the high school, and may be taken by students who have presented no units of credit in German for entrance to the University. Those who present one unit for entrance may take Courses 2 and 3 for credit.]

1a. Elementary German.—Special course for beginners, having particularly in mind requirements of other major departments, and the University requirement for the Ph.D. degree.
5 units, summer quarter (NYE) MTWThF 11
Summer, 17

16a. Second-Year Translation.—Texts of all literary types except articles on natural science.
2 units, autumn quarter (WOERNER) TTh 8
Autumn, 10

16b. Second-Year Translation.—Articles on natural science.
2 units, autumn quarter (NYE) TTh 1:05
Autumn, 37

17b, 18b.—Continuations of 16*a* and 16*b*.
17b, *winter, 32 (2 sections);* 18b, *spring, 9*

19. Second-Year Translation.—Prerequisite: two years of high-school German, or the equivalent. Science texts read.
2 units, summer quarter (NYE) TTh 10
Summer, 9

20. Free Reading.—Open only to students who have had at least two of the courses numbered between 16 and 18, and between 21 and 25. Permission of the instructor necessary before registration. Thirty-six hours of reading per unit, and weekly conferences with the instructor.
1 or 2 units, autumn, winter, and spring quarters (EBERHARD, NYE) By arrangement
Autumn, 41 (2 sections); winter, 51 (2 sections); spring, 52 (2 sections)

21. Second-Year German.—The aim of this course is to extend and strengthen the student's personal command of German, both oral and written. The course is taken to best advantage as a whole, but may be taken in part, either the division 21*a*, which is devoted to the reading and discussion in German of texts selected from the writings of contemporary or late nineteenth-century authors, or the division 21*b*, which affords training in composition, conversation, and practical grammar.

21a. Second-Year Reading.
3 units, autumn and *winter quarters (EBERHARD, NYE, SHARP, SOKOL, WOERNER) (autumn) MWF 8, 9, 10, 11; (winter) MWF 11
Autumn, 83 (4 sections); winter, 16

21b. Second-Year Composition.
2 units, autumn and *winter quarters (SOKOL, WOERNER)
Autumn, 21 (2 sections); winter, 8 (autumn) TTh 8, 11; (winter) TTh 11

22. Second-Year German.—A continuation of Course 21.

22a. Second-Year Reading.
3 units, winter and *spring quarters (NYE, SOKOL, WAGNER, WOERNER)
Winter, 66 (4 sections); spring, 13 (winter) MWF 8, 9, 10, 11; (spring) MWF 11

22b. Second-Year Composition.
2 units, winter and *spring quarters (SOKOL, WOERNER)
Winter, 9 (2 sections); spring, 5 (winter) TTh 8, 11; (spring) TTh 11

23. Second-Year German.—A continuation of Course 22.

23a. Second-Year Reading.
3 units, autumn and *spring quarters (SHARP, SOKOL, WAGNER)
Autumn, 7; spring, 29 (3 sections) (spring) MWF 8, 9, 10; (autumn) MWF 11

23b. Second-Year Composition.
2 units, spring quarter (SHARP) TTh 11
Spring, 4

[NOTE.—Second-year German (which includes Courses 21, 22, and 23) is the equivalent of the third and fourth years of German in the high school. Students who present three units in German for entrance may take Courses 22 and 23 for credit.]

24. Second-Year German.

24a. Second-Year Reading.
3 units, summer quarter (NYE) MWF 8
Summer, 9

24b. Second-Year Composition.
2 units, summer quarter (NYE) TTh 8
Summer, 4

25. Oral German.—Pronunciation, recitation of memorized poetry and prose, writing from dictation, conversation. This course may be taken three quarters for credit.
2 units, autumn, winter, and spring quarters (EBERHARD) TTh 10
Autumn, 9; winter, 19; spring, 23

30. Individual Reading.—Thirty-six hours of reading per unit, and weekly conferences with the instructor.
1 or 2 units, summer quarter (NYE) By arrangement
Summer, 14

90. History of Germany.—A general survey, with particular emphasis on the period since 1848.
3 units [Not given in 1929–30]

91. General Survey of German Literature.—Lectures in English, readings from English translations.
3 units [Not given in 1929–30]

95. German Influences on American Culture: Literature, Scholarship, Painting, Music.—One lecture a week, in English, open to the general University public. This course carries no University credit.
Summer quarter (VON KLENZE) W 11

100. Third-Year Reading.
2 units, winter and spring quarters (SOKOL) (winter) TTh 9; (spring) TTh 10
Winter, 6; spring, 4

101. Novels.—A course in rapid reading of modern novels, with discussions in German of their subject matter and technique.
3 units, autumn quarter (COOPER) MWF 9
Autumn, 12

102. Dramas.—A continuation of Course 101.
3 units, winter quarter (COOPER) MWF 9
Winter, 14

103. Masterpieces.—A continuation of Course 102.
3 units, spring quarter (COOPER) MWF 9
Spring, 7

105. German Romanticists.—Inductive study of the thought and form of German Romanticism. Prerequisite: at least two years of college German, or the equivalent. This course conducted in German.
3 units, summer quarter (MAHR) MWF 8
Summer, 6

111. Advanced Composition.—By composition is meant, not translation from English, but the employment in connected prose of German material either gathered from reading or specially assigned by the instructor.
2 units, autumn quarter (SOKOL) By arrangement
Autumn, 10

112. Advanced Composition.—Continuation of Course 111.
2 units, winter and summer quarters (SOKOL, MAHR) By arrangement
Winter, 4; summer, 2

113. Advanced Composition.—Continuation of Course 112.
2 units, spring quarter (SOKOL) By arrangement
Spring, 5

115. Vocal Interpretation.—Reading aloud and reciting of prose and verse selections, including all types of composition, with special emphasis upon accuracy of pronunciation and intonation.
2 units, summer quarter (Mahr) MW 9
Summer, 5

120. Deutsche Landschaft und Siedlung.—Lectures in German, illustrated with lantern slides. Examination in English, on subject matter.
1 unit, autumn quarter (Mahr) TTh 10
Autumn, 8

121. Die deutsche Stadt.—Genesis and morphology of the city as a social and economic organism. Lectures in German, with lantern slides. Examination in English, on subject matter.
1 unit, winter quarter (Mahr) TTh 10
Winter, 9

122. Deutsche Dome.—Lectures in German, illustrated with lantern slides. Examination in English, on subject matter.
1 unit, summer quarter (Mahr) TTh 8
Summer, 10

123. Deutsche Künstler.—Lectures in German, illustrated with lantern slides. One unit of credit for regular attendance. No examination.
1 unit, summer quarter (Mahr) [Not given in 1929–30]

124. Schweizer Landeskunde.—A course parallel to 120.
1 unit [Not given in 1929–30]

125. Oesterreich.—A course parallel to 120.
1 unit, spring quarter (Sokol) TTh 8
Spring, 7

141. Schiller.
2 units, spring quarter (Sokol) MW 11
Spring, 3

150. Directed Reading. — Prerequisites: Second-Year German and, if possible, one or more of the Courses 100 to 104. Individual courses of reading, suited to special needs and desires. Thirty-six hours of reading per unit, and brief interviews, once a week, with the instructor.
1 or 2 units, each quarter (Cooper, Mahr) By arrangement
Autumn, 8; winter, 8; spring, 8

151. Individual Composition.—The aim of this course is to develop correct, idiomatic, and adequate expression.
1 unit, autumn and winter quarters (Mahr) By arrangement
Autumn, 1; winter, 1

152. Individual Work.—Training in other lines than reading or composition, to meet special needs.
1 unit, each quarter (Cooper, Mahr) By arrangement
Summer, 5

161. German Syntax.
2 units [Not given in 1929–30]

162. German Etymology.
2 units, autumn quarter (Cooper) TTh 10
Autumn, 5

163. Word Studies.—Study of selected words in their relation to cultural history.
2 units (Cooper) [Not given in 1929–30]

164. Introduction to Germanic Philology.
2 units (Cooper) [Not given in 1929–30]

165. Deutsche Erzähler der Gegenwart.—Study of the language, style, etc., of a novel each by Thomas Mann, Werfel, and Wassermann, and short stories by Mann, Hans Grimm, and Wilhelm Schaefer. Course conducted in German.
2 units, summer quarter (VON KLENZE) TTh 10
Summer, 10

166. Der deutsche Wortschatz.
2 units, winter quarter (COOPER) TTh 10
Winter, 7

167. Wortbildung.
2 units, spring quarter (COOPER) TTh 9
Spring, 6

170. Hans Sachs.—Inductive study of the sixteenth-century German drama. Prerequisite: at least three years of college German or the equivalent. Course conducted in German.
2 units, summer quarter (MAHR) TTh 11
Summer, 9

170a. Recent German Drama.
2 units, spring quarter (SCHILLING) TTh 10
Spring, 5

171. Hebbel's Dramas.
2 units, winter quarter (MAHR) TTh 8
Winter, 4

172. Deutsche Lyrik seit Goethe.
3 units, autumn quarter (MAHR) MWF 11
Autumn, 5

173. Goethe's Dichtung und Wahrheit.
3 units, autumn quarter (COOPER) MWF 10
Autumn, 13

174. Goethe's Lyrics.—A study of Goethe's lyrics in relation to his life and to his conception of the poet's calling.
3 units (COOPER) [Not given in 1929–30]

175. Goethe's *Faust*.
3 units, winter and spring quarters (COOPER) MWF 10
Winter, 15; spring, 12

177a. Schiller's Dramas.
2 units [Not given in 1929–30]

177b. Schiller's Poems.
2 units [Not given in 1929–30]

178. Heine's Works.
2 units [Not given in 1929–30]

180. History of German Literature of the Classical Period.
2 units, spring quarter (SCHILLING) TTh 2
Spring, 4

181. History of German Literature up to the Nineteenth Century.
3 units [Not given in 1929–30]

182. History of the Nineteenth-Century Literature.
3 units, autumn quarter (MAHR) MWF 8
Autumn, 4

183. Current Literary Movements.
3 units, winter quarter (MAHR) MWF 11
Winter, 4

184. Goethe from the Comparative Point of View.—Lectures in German. A panoramic view of the eighteenth century with Goethe as the center,

and an interpretation of Goethe's work—literary, philosophical, critical—as an exponent of the modern *Weltanschauung* as contrasted with the *Weltanschauung* of Dante.
3 units, summer quarter (VON KLENZE) MWF 10
Summer, 11

195. Das deutsche Volkslied.—Principal types studied with regard to the historical development of their meters, words, and melodies, from the Middle Ages down to the present day. Lectures illustrated with vocal and instrumental renderings.
2 units (MAHR) [Not given in 1929–30]

200. German Teachers' Course.—Subject matter, methods, books, illustrative material.
2 units (COOPER) [Not given in 1929–30]

202. Deutsche Uebungen für Lehrer.—Practical exercises, designed to train teachers of German in the treatment of the literature since Schiller and Goethe. A course of reading, including representative dramas, stories, and lyrics, is assigned, and these works are made the subject of running comment and class discussion in German.
2 units, summer quarter (VON KLENZE) TTh 9
Summer, 8

221. Gothic.
3 units, autumn quarter (MAHR) By arrangement
Autumn, 5

223. Old High German.
3 units, winter quarter (MAHR) By arrangement
Winter, 2

224. Middle High German.
2 units [Not given in 1929–30]

230. Introduction to Comparative Philology.
2 units, spring quarter (SCHILLING) TTh 1:05
Spring, 11

231. Comparative Grammar of German and English.
3 units [Not given in 1929–30]

241. Seminary.
3 units [Not given in 1929–30]

251. Master's Thesis.—The candidate reports weekly to the instructor in charge for criticism, the work extending over three quarters, as a rule.
1 to 3 units, each quarter (COOPER, MAHR) By arrangement
Autumn, 2; winter, 4; spring, 5; summer, 2

ROMANIC LANGUAGES

Oliver Martin Johnston, Clifford Gilmore Allen, Alfred Coester, Aurelio Macedonio Espinosa, Stanley Astredo Smith, Professors
Marcel Moraud (Rice Institute), Antonio García Solalinde (University of Wisconsin), Acting Professors (Summer Quarter)
Frederick Anderson, Associate Professor
William Leonard Schwartz, Assistant Professor
Ida Stauf, Instructor
Adele Jallade (University of Southern California), Acting Instructor (Summer Quarter)
Wallace Woodward Barker, Grace Knopp, Madeleine Lechten, Nellis Verna McBroom, Pilar de Madariaga, Edmond Eric Masson, Walter Peter Miksch, John Turner Reid, Mary Frances Wildman, Assistants in Instruction

The undergraduate courses in the Romanic Languages are planned so as to give students an intimate acquaintance with the modern forms of the languages spoken in the principal Neo-Latin countries. To this end systematic attention is paid to pronunciation, reading, syntax, and conversation. In the higher courses special emphasis is laid on the study of literature. In order to give students an opportunity to become familiar with the spoken idioms, the majority of the courses are conducted in the language which forms the object of study.

REGISTRATION

First-year French and Spanish are given by competent instructors under the supervision of the department faculty, and a fee of $8 per quarter is charged. Students may receive full University credit for the following courses, as indicated: Course A2 (or B2) for students entering with *one* entrance unit in French or Spanish; Course A21 (or B21) or Course A3*a* (or B3*a*) for students with *two* entrance units; Course A22 (or B22) for students with *three* entrance units; Course A111 (or B101 or B111) for students with *four* entrance units. Students repeating work covered in the high school will receive only half-credit in the University for the courses listed above.

Students who are required to take Course A3*a* or B3*a* during the autumn quarter may begin Second-Year French or Spanish (A21 or B21) in the winter quarter. Students who complete A22 or B22 with a grade of A will be admitted to advanced courses in French or Spanish.

GRADUATION

The following work should be completed prior to admission to the Upper Division in order that the department requirements for the degree of Bachelor of Arts may be completed within two years: A1, A2, A3, or B1, B2, B3, and A21, A22, A23, or B21, B22, B23, or the equivalents. (Courses A1, A2, A3, and B1, B2, B3 are equivalent to the first two years of high-school work in French and Spanish, respectively. Courses A21, A22, A23, and B21, B22, B23 are equivalent to the third and fourth years of high-school work in French and Spanish, respectively.)

Either French or Spanish may be selected as a major subject. In addition to the elementary course, which does not count as a part of the requirement, majors in French or Spanish must complete the following courses for the degree of Bachelor of Arts:

1. Second-year course (15 units);
2. Advanced Composition and Conversation (9 units);
3. Six courses in literature or philology in the major subject (2-unit courses counting as half courses.

These six courses must include an outline course in the literature of the major subject (A140 for French majors and B140 for Spanish majors, or their equivalent). It is desirable that the outline course precede the other literary courses in the subject.

Major students must register each quarter for at least one course in the major subject. This provision is intended to prevent students from crowding major requirements into certain quarters and from registering as French or Spanish majors in other quarters without taking any work in the major subject.

The total number of units required for the degree of Bachelor of Arts will be approximately 43 or 44 units, exclusive of the elementary course.

THE TEACHER'S RECOMMENDATION

The department also accepts candidates for certification as high-school teachers of French and Spanish in California and provides courses to meet the special needs of such candidates. The requirements for the Teacher's Recommendation are the same as for the degree of Bachelor of Arts with the exception of the fact that the following courses must be included: A110 and A190 for majors in French; B110 and B200 for majors in Spanish.

REQUIREMENTS FOR ADVANCED DEGREES

Master of Arts

Candidates for the Master's degree in the department of Romanic Languages must present a thesis prepared under the direction of a member of the department. They must also pass a written examination, drawn up and passed upon by a committee of the department, consisting of two parts: (1) on the history of French or Spanish literature, 3 hours; (2) on the geography and history of France or Spain, to be written in French or Spanish, 2 hours.

In general, a knowledge of Latin and German is a necessary preparation for the graduate courses offered.

Doctor of Philosophy

A. For All Candidates

1. Acquaintance with the principal works on Romance philology and literature; the noteworthy histories of French or Spanish literature; editions of great writers, etc.
2. The essentials of Romance philology; Vulgar Latin; characteristics of the principal Romance languages; history of the French or Spanish language; Romance versification.
3. History of French or Spanish literature, and of the principal literary movements common to all European literatures.
4. A general knowledge of the history and geography of France or Spain.
5. A thorough knowledge of the French or Spanish language and a reading knowledge of Latin, Italian, and German.

B. For Candidates Specializing in Philology

A written examination on phonetics and general linguistics as illustrated

in the history of the French or Spanish language, and on the origins of Romance literature.

C. For Candidates Specializing in Literature

A written examination on the general history of French or Spanish literature, and a detailed examination on certain literary periods and authors.

The requirements outlined above may be fulfilled by following closely the program of studies outlined below, which represents in general the detailed departmental requirements.

I. With French or Spanish as a Major.—(*a*) The completion of about thirty quarter courses of strictly graduate character or their equivalent above the Bachelor's degree.

b) At least fifteen of these courses, or about one-half of the entire program of courses presented for the degree, should be done in French or Spanish.

c) At least five courses or their equivalent must be taken in the field of general Romance philology and literature, but two of these courses, Phonetics and Vulgar Latin, are required.

d) The ten remaining courses or their equivalent may be taken in one or two related fields or departments. For the present candidates majoring in French or Spanish are advised to select their minor or minors in Spanish, Latin, Italian, English, German, or French, Latin, Italian, English, German, respectively.

e) The dissertation required by the department as well as by the general University regulations in partial fulfillment of the requirements for the degree of Doctor of Philosophy is not included in any of the above requirements and is not to be counted as a course or courses.

II. With French or Spanish as a Minor.—The completion of about ten courses or their equivalent in French or Spanish philology and literature.

A. FRENCH

I. Elementary and Intermediate Courses

A1. Elementary French.—Training in pronunciation by means of phonetic symbols. Oral work. The elements of French grammar; the regular verb and the verbs *avoir* and *être;* Johnston and Elmore, *A French Grammar for High Schools and Colleges,* 23 lessons. Reading from Pumpelly, *A French Reader for Beginners, Elementary French Reader.*

5 units, autumn, *winter, and *summer quarters (Stauf, Barker, Miksch, Wildman, Lechten) (autumn) MTWThF 9, 11; (winter, summer) MTWThF 9
Autumn, 104 (4 sections); winter, 22; summer, 8

A2. Elementary French (continued).—Oral work continued. Study of the irregular verbs. Johnston and Elmore, *A French Grammar for High Schools and Colleges,* 23 lessons. Reading from Pumpelly, *A French Reader for Beginners.* Prerequisite: A1, or one year of high-school French.

5 units, winter and *spring quarters (Stauf, Barker, Masson)
Winter, 74 (4 sections); spring, 20 (winter) MTWThF 9, 11; (spring) MTWThF 9

A3. Elementary French (continued).—Thorough review of grammar. Oral work. Reading: About, *Le Roi des Montagnes.* Prerequisite: A2, or equivalent.

5 units, autumn and spring quarters (Masson, Stauf) MTWThF 9, 11
Autumn, 10; spring, 63 (3 sections)

A3a. Elementary French, Special Course.—Grammar and Composition. Johnston and Elmore, *A French Grammar for High Schools and Colleges.*

Intended for two classes of students: (1) for those who are credited with one year and a half of high-school French; (2) for those who are technically entitled to enter Second-Year French, but whose preparation is insufficient. (See the general announcement above.)

3 units, autumn quarter (Masson) MWF 9
Autumn, 23

A21. Second-Year French.—Grammatical review, Composition, Reading. Texts: Malakis, *Intermediate French Grammar;* Vigny, *Servitude et Grandeur militaires.* Course conducted as far as possible in French. Prerequisite: A3, or two years of high-school French.

5 units, autumn and *winter quarters (autumn, Schwartz, Anderson, Barker) MTWThF 9, 10; (winter, Miksch) MTWThF 9
Autumn, 75 (3 sections); winter, 27

A22. Second-Year French (continued).—Grammar and Composition, Reading: Vreeland and Koren, *French Syntax and Composition;* Angier, *Le Fils de Giboyer;* La Fontaine, *One Hundred Fables.* Conducted as far as possible in French. Prerequisite: A21, or three years of high-school French.

5 units, winter and *spring quarters (winter, Schwartz, Anderson, Barker) MTWThF 9, 10; (spring, Barker) MTWThF 9
Winter, 66 (3 sections); spring, 22

A23. Second-Year French (continued).—Vreeland and Koren, *French Syntax and Composition;* Curel, *Le Repas du lion;* Tillier, *Mon Oncle Benjamin.* Conducted in French. Prerequisite: A22, or equivalent.

5 units, spring quarter (Schwartz, Anderson) MTWThF 9, 10
Spring, 47 (2 sections)

A26. French Scientific Reading.—Intended for engineers. Daniels, *French Scientific Reader.* Prerequisite: A3.

3 units, autumn quarter (Miksch) TThS 11
Autumn, 21

A27. French Scientific Reading (continued).

3 units, winter quarter (Miksch) TThS 11
Winter, 23

A28. French Scientific Reading (continued).—Greenfield and Babson, *Industrial and Scientific French.*

3 units, spring quarter (Miksch) TThS 11
Spring, 17

A30. Directed Reading.—Prerequisite: A23. Readings and one conference period a week for oral reports. Enrollment limited; may not be repeated for credit.

1 or 2 units per quarter (Schwartz, Johnston, Miksch)
Autumn, 21 (3 sections); winter, 22 (3 sections); spring, 18 (2 sections)
T 2:03–3:05, W 2:05–3:05

A40. French Conversation.—Texts illustrating French life are memorized to facilitate conversation in correct French. Prerequisite: A21, or equivalent.

2 units, autumn quarter (Schwartz) TTh 10
Autumn, 11

A60. Intermediate French Composition and Conversation.—Prerequisite: A21, or equivalent.

3 units, summer quarter (Jallade) MWF 11
Summer, 6

II. Advanced and Graduate Courses

A101. Commercial French.—Letter-writing and introduction to commercial vocabulary. Malakis, *Le Français du commerce;* Fish, *French Commercial Correspondence.* Prerequisite: A23 or equivalent.

3 units (Schwartz) [Not given in 1929–30]

A110. French Pronunciation.—Training in French pronunciation by means of practical phonetics. This course is of special interest to prospective teachers. Prerequisite: A23, or equivalent.
2 units, autumn quarter (SMITH) MW 3:05–4:05
Autumn, 9

A111. Third-Year French Composition and Conversation.—Composition and dictation. Coindreau and Lowe, *French Composition Book.* Conducted in French. Prerequisite: A23, or four years of high-school French.
3 units, autumn and *summer quarters (SCHWARTZ, JOHNSTON) MWF 8, 11
Autumn, 41 (2 sections); summer, 7

A112. Third-Year French Composition (continued).—Coindreau and Lowe, *French Composition Book.* Prerequisite: A111, or equivalent.
3 units, winter quarter (SCHWARTZ, SMITH) MWF 8, 11
Winter, 32 (2 sections)

A113. Third-Year French Conversation (continued).—Bertenshaw and Janau, *French Composition.* Prerequisite: A112, or equivalent.
3 units, spring quarter (SCHWARTZ, SMITH) MWF 8, 11
Spring, 24 (2 sections)

A121. Fourth-Year French Composition. — Translation of connected English prose into French. Original composition. Dictation. Prerequisite: A113.
3 units, autumn quarter (SMITH) MWF 2:05
Autumn, 7

A122. Fourth-Year French Composition (continued).
3 units, winter quarter (SMITH) MWF 2:05
Winter, 7

A123. Fourth-Year French Composition (continued).
3 units, spring quarter (SMITH) MWF 2:05
Spring, 4

A130. French Classics.—Reading in class of masterpieces of French literature. Prerequisite: A23, or equivalent.
3 units, summer quarter (SCHWARTZ) MWF 9
Summer, 8

A131. Renan.—Reading and interpretation of the *Souvenirs d'Enfance et de Jeunesse* and selections from his other works.
2 units (ANDERSON) [Not given in 1929–30]

A132. Rousseau.—Reading and interpretation of selections from Jean Jacques Rousseau.
2 units, autumn quarter (ANDERSON) TTh 11
Autumn, 30

A133. Mme de Staël.—*De l'Allemagne,* reading and interpretation.
2 units (ANDERSON) [Not given in 1929–30]

A134. Taine.—Reading and discussion of V. Giraud's *Pages Choisies de Taine.*
2 units (ANDERSON) [Not given in 1929–30]

A135. Classical French Moralists.—Reading and interpretation of selections from Pascal, La Rochefoucauld, La Bruyère, and Vauvenargues.
2 units, autumn quarter (ANDERSON) TTh 2:05–3:05
Autumn, 19

A136. Voltaire.
3 units (ANDERSON) [Not given in 1929–30]

A140a. Synopsis of French Literature.—Lectures in French on Early French Literature and on the Sixteenth Century. Texts: Chinard, *Petite*

Histoire des lettres françaises; Anderson, *Illustrations of Early French Literature;* Bush and Young, *Sixteenth Century French Anthology.*
2 units, autumn quarter (ANDERSON) TTh 9
Autumn, 30

A140b. Synopsis of French Literature (continued).—The Classic Age. Chinard, *Petite Histoire des lettres françaises;* Harper's *French Anthology.*
2 units, winter quarter (ANDERSON) TTh 9
Winter, 22

A140c. Synopsis of French Literature (continued). — The Romantic Movement, the Nineteenth Century. Same texts as in A140*b*.
2 units, spring quarter (ANDERSON) TTh 9
Spring, 20

A141. The Modern French Drama.—Lectures in French. Outside reading, discussions, and reports. Prerequisite: A23, or equivalent.
3 units, summer quarter (MORAUD) MWF 9
Summer, 10

A142. The Modern French Novel.—Lectures in French on the history of the novel in France since 1800. Extensive readings. Prerequisite: A23, or equivalent.
4 units, winter quarter (SCHWARTZ) MWF 1:05–2:05
Winter, 19

A143. French Lyric Poetry.—Course conducted in French. Preliminary study of medieval poetical forms, leading to extensive reading in class of nineteenth-century poets. Intended to familiarize students with the best-known masterpieces. Textbooks: *Oxford Book of French Verse,* Henning's *French Lyrics of the Nineteenth Century.* Prerequisite: A23, or equivalent.
4 units, spring quarter (SCHWARTZ) MTWTh 1:05–2:05
Spring, 6

A145. French Historians.—Lectures on French Historians of the nineteenth century. Reading of selections. Conducted in French. Prerequisite: A23, or its equivalent.
3 units (ANDERSON) [Not given in 1929–30]

A150. Hugo.—His period, life, and works. Prerequisite: A23, or the equivalent.
2 units (SCHWARTZ) [Not given in 1929–30]

A151. Molière.—The complete works are read, with special attention to the characters in the plays. Readings and reports. Prerequisite: A23, or equivalent.
4 units (SCHWARTZ) [Not given in 1929–30]

A152. Literary Criticism.—Lectures on the relation between philosophy and literature.
3 units, winter quarter (ANDERSON) MWF 9
Winter, 24

A161. French Literature in the Seventeenth Century (exclusive of the drama).—Lectures in French. Reading and interpretation of representative texts. Outside reading and reports. Prerequisite: A23, or the equivalent.
3 units, autumn quarter (SMITH) MWF 11
Autumn, 8

A162. French Literature in the Eighteenth Century.—A study of the main ideas and tendencies of the period as illustrated by the lives and works of its most important authors. Outside reading and reports. Conducted in French. Prerequisite: A23, or the equivalent.
3 units, winter quarter (SMITH) MWF 3:05–4:05
Winter, 6

A163. The Romantic Movement in France.—A study of the main features of romanticism and of the most important representatives of the French romantic movement. Lectures in French. Outside reading. Prerequisite: A140, or equivalent.
3 units, spring and *summer quarters (Anderson, Moraud) MWF 1
Spring, 10; summer, 14

A164. Sixteenth Century.—Reading and interpretation of representative selections. Lectures and reports at the discretion of the instructor.
3 units (Smith) [Not given in 1929–30]

A165. La littérature française d'hier et d'aujourd'hui.—Lectures in French, readings and reports. Lalou, *Histoire de la littérature française contemporaine.* Prerequisite: A111 or A140.
2 units, spring quarter (Schwartz) TTh 10
Spring, 9

A170. Corneille.
3 units (Johnston) [Not given in 1929–30]

A171. French Tragedy.—Lectures on the art of French tragedy, with interpretation and discussion of selected plays. Outside reading and reports. Prerequisite: A140, or equivalent.
3 units, spring quarter (Johnston) Th 2:05–4:05
Spring, 3

A190. Modern French Syntax.—Review of French grammar with lectures and discussion. Modern usage in the light of its psychological and historical development. This course is designed to be of special use to teachers.
2 units, spring quarter (Johnston) MWF 2:05–3:05
Spring, 9

[Teachers' Course in French.—See Education 209.]

III. Primarily for Graduates

A201. Introduction to the Study of Old French.—Reading and interpretation of Old French texts selected from Bartsch-Wiese, *Chrestomathie de l'Ancien Français,* with a study of Old French Phonology and Morphology.
3 units, winter and *summer quarters (Johnston, Schwartz) MWF 2:05–3:05
Winter, 5; summer, 2

A202. French Historical Grammar.—Lectures on Old French Phonology and Morphology.
3 units, autumn quarter (Johnston) MWF 2:05–3:05
Autumn, 4

A203. French Historical Syntax.—The most important phases of modern French syntax are studied from a historical point of view. This course is intended primarily for teachers.
3 units (Johnston) [Not given in 1929–30]

A204. Old French Literature.—French literature from the beginnings to the fifteenth century, with emphasis on the literary and social traits.
3 units (Johnston) [Not given in 1929–30]

A205. French Arthurian Romances.—Lectures on the romances of the Round Table, the legend of the Holy Grail, and the legend of Tristan and Iseult. Outside reading and reports.
3 units (Johnston) [Not given in 1929–30]

A240. Graduate Thesis.
3 to 5 units per quarter

A250. French Seminary.—*Floire et Blancheflor.*
2 units (Johnston) [Not given in 1929–30]

A251. French Seminary.—The Old French Epic.
3 units (JOHNSTON) [Not given in 1929-30]

B. SPANISH

I. ELEMENTARY AND INTERMEDIATE COURSES

B1. Elementary Spanish.—The elements of pronunciation, grammar, reading, and conversation. Texts: Espinosa and Allen, *Beginning Spanish,* Lessons I–XXV; Navarro-Espinosa, *A Primer of Spanish Pronunciation,* pages 1–74.
5 units, autumn, *winter, and *summer quarters (MCBROOM)
(autumn) MTWThF 9, 11; (winter) MTWThF 9
Autumn, 72 (2 sections); winter, 20; summer, 7

B2. Elementary Spanish (continued).—Texts: Espinosa and Allen, *Beginning Spanish,* Lessons XXVI–XLVII; Navarro-Espinosa, *A Primer of Spanish Pronunciation,* pages 75–113; Espinosa, *First Spanish Reader,* Lessons XV–XXXIII.
5 units, winter and *spring quarters (MCBROOM, KNOPP)
Winter, 57 (2 sections); spring, 16 (winter) MTWThF 9, 11; (spring) MTWThF 9

B3. Elementary Spanish (continued).—Texts: Espinosa and Allen, *Beginning Spanish,* Lessons XLVIII–LXVIII; Quintero, *La Muela del rey Farfán;* Allen, *Fábulas y Cuentos.*
5 units, autumn and *spring quarters (MCBROOM) MTWThF 9, 11
Autumn, 14; spring, 49 (2 sections)

B3a. Elementary Spanish, Special Course.—Grammar and Composition. A rapid review of Espinosa and Allen, *Beginning Spanish,* Lessons VII–LX. Intended for two classes of students: (1) for those who are credited with one year and a half of high-school Spanish; (2) for those who are technically entitled to enter Second-Year Spanish, but whose preparation is insufficient. (See the last two paragraphs of the general announcement above.)
3 units, autumn quarter (KNOPP) MWF 9
Autumn, 26

B21. Second-Year Spanish.—Review of grammar, with abundant practice in conversation and composition. Reading aloud in Spanish, with careful drill in pronunciation. Reading and interpretation of Spanish texts, with a minimum of translation. Conversation in Spanish based on the texts read. Bimonthly tests in translation and written reproduction of Spanish texts or short stories. Conducted mainly in Spanish.

Composition and conversation (TTh). Text: Espinosa-Allen, *Elementary Spanish Grammar,* Lessons XV–XLIX.

Reading, pronunciation, and conversation (MWF). Texts: Benavente, *El príncipe que todo lo aprendió en los libros;* Palacio Valdés, *La Hermana San Sulpicio.*
5 units, autumn and *winter quarters (REID, COESTER)
(autumn) MTWThF 9, 11; (winter) MTWThF 11
Autumn, 47 (2 sections); winter, 31

B22. Second-Year Spanish (continued).—Composition and conversation (TTh). Texts: Espinosa, *Elementary Spanish Composition and Conversation.* For grammar review and reference, Espinosa-Allen, *Elementary Spanish Grammar.* Original exercises in Spanish composition. Final examinations on all regular and irregular verbs and the use of the subjunctive.

Reading, pronunciation, and conversation (MWF). Texts: Martínez Sierra, *Teatro de Ensueño;* Pardo Bazán, *El Tesoro de Gastón.*
5 units, winter and *spring quarters (REID, MCBROOM)
Winter, 45 (2 sections); spring, 16 (winter) MTWThF 9, 11; (spring) MTWThF 9

B23. Second-Year Spanish (continued).—Composition and conversation (TTh). Oral drill in conversation and the mastery of a correct pronunciation. Short stories, and original compositions. Advanced Spanish grammar. Text: Seneca, *Spanish Composition.*

Reading and interpretation of Spanish texts (MWF). Texts: Martínez Sierra, *Canción de Cuna;* Coester, *Cuentos de la América Española.*

5 units, spring quarter (Reid, Coester) MTWThF 9, 11
Spring, 40 (2 sections)

B26. Spanish Scientific Reading.—Intended for engineers. Prerequisite: B3.

3 units, autumn quarter (Knopp) TThS 11
Autumn, 10

B27. Spanish Scientific Reading (continued).

3 units, winter quarter (Knopp) TThS 11
Winter, 13

B28. Spanish Scientific Reading (continued).

3 units, spring quarter (Knopp) TThS 11
Spring, 8

B30. Directed Reading.—Prerequisite: B23. Readings and one conference period a week for oral reports. Enrollment limited; may not be repeated for credit.

1 or 2 units per quarter (Reid, Knopp) T 1:05, W 1:05
Autumn, 9; winter, 8; spring, 10

B40. Spanish Conversation.—Easy Spanish stories and exercises. Prerequisite: B3, or equivalent.

3 units (Espinosa) [Not given in 1929–30]

B60. Intermediate Spanish Conversation and Composition.

3 units, summer quarter (de Madariaga) MWF 1:05
Summer, 4

II. Advanced and Graduate Courses

B101. Commercial Spanish.—Review of grammar and introduction to commercial vocabulary. Prerequisite: B23.

3 units, autumn quarter (Coester) MWF 10
Autumn, 22

B102. Commercial Spanish.—Letter-writing and introduction to commercial practice. Prerequisite: B101.

3 units, spring quarter (Coester) MWF 10
Spring, 13

B103. Commercial Spanish.—Letter-writing (continued). Study of commercial documents. Writing of advertisements and circular letters. Prerequisite: B102 or equivalent.

3 units (Coester) [Not given in 1929–30]

B110. Spanish Pronunciation.—Lectures and practical exercises in the elements of Spanish pronunciation. This course should be taken by Spanish majors in the first year.

2 units, spring quarter (Espinosa) TTh 10
Spring, 27

B111. Advanced Spanish Composition and Conversation.—Review of grammar, with reading and interpretation of literary texts. Oral and written reproduction of short stories and literary material. Original exercises in composition. Prerequisites: Courses B21, B22, B23.

3 units, autumn quarter (Espinosa) MWF 9, 11
Autumn, 35 (2 sections)

B112. Advanced Spanish Composition and Conversation (continued). —Prerequisite: B111.
3 units, winter quarter (ESPINOSA) MWF 9, 11
Winter, 26 (2 sections)

B113. Advanced Spanish Composition and Conversation (continued). —Translation into Spanish of select English prose. Prerequisite: B112.
3 units, spring quarter (ESPINOSA) MWF 9
Spring, 24 (2 sections)

B121. Curso de composición y estilo.—En este curso se estudian algunas obras literarias en prosa para modelos de estilo. Composiciones originales cada semana. Gramática de referencia: Bello-Cuervo, *Gramática de la Lengua Castellana.* Prerequisite: B113.
3 units (ESPINOSA) [Not given in 1929–30]

B122. Curso de composición y estilo (*continuación*).
3 units (ESPINOSA) [Not given in 1929–30]

B123. Curso de composición y estilo (*continuación*).
3 units (ESPINOSA) [Not given in 1929–30]

B130. Spanish Classics.—A study of the principal authors of the classical period. Representative texts are read of Cervantes, Lope de Vega, Calderón, Alarcón, Tirso de Molina, as well as selections from Ford's *A Spanish Anthology.* Open to students who have completed Courses B21, B22, B23, or their equivalents.
4 units, autumn quarter (ALLEN) MTWF 11
Autumn, 13

B138. Modern Spanish Dramatists.—A study of Galdós, Benavente, Martínez Sierra, and others. Lectures in English with assigned readings in English or Spanish. Open to juniors and seniors in all departments.
2 units (ESPINOSA) [Not given in 1929–30]

B140. Spanish Literature.—Outline course. Fitzmaurice-Kelly, *Historia de la literatura española.* Lectures and recitations. Prerequisite: B130.
3, 4, or 5 units, winter quarter (ALLEN) MWF 11
Winter, 17

B141. Teatro Español Contemporáneo.—(*a*) Breve resumen de la historia del teatro español en el siglo XIX: Rivas, Gutiérrez, Zorilla, Bretón de los Herreros, Ayala, Echegaray. (*b*) Estudio de los dramáticos contemporáneos, con atención especial a Galdós, Jacinto Benavente, los Quinteros, Eduardo Marquina y Martínez Sierra. Prerequisites: B21, B22, B23, or their equivalents.
3 or 5 units, spring quarter (ESPINOSA) MWF 10
Spring, 12

B142. Modern Spanish Novel.—A study of the modern Spanish novel and its relation to the development of the novel in France and other European countries. Lectures and collateral readings. Prerequisites: B21, B22, B23, or their equivalents.
3 to 5 units, spring quarter (ALLEN) MWF 11
Spring, 20

B143. Early Spanish Lyric Poetry.—A study of the various schools of lyric poets, as the Galician, the Italian, the National, etc. Prerequisite: B130.
3 units (ALLEN) [Not given in 1929–30]

B144. Modern Spanish Lyrics.—Prerequisites: B21, B22, B23, or their equivalents.
2 units (ALLEN) [Not given in 1929–30]

B148. Curso general de literature española desde sus orígenes hasta la época contemporánea.—Conferencias y lecturas.
3 units, summer quarter (SOLALINDE) MWF 11
Summer, 19

B153. Spanish-American Literature.—General outline. The writings of Spanish Americans are studied from the point of view of the nationality of the writers and as the product of differing political, social, and geographic conditions. Prerequisite: B23.
3 units, autumn quarter (COESTER) MWF 1:05–2:05
Autumn, 15

B154. Argentine Literature.—The aim of this course is to acquaint the student with the history and mental characteristics of the Argentines through the medium of their own literary productions. Prerequisite: B23.
3 units (COESTER) [Not given in 1929–30]

B155. The Modernista Movement in America and Spain.—Rubén Darío, Gutiérrez Nájera, Silva, Chocano, and their influence on Spanish lyric poets since 1898. Prerequisite: B111, or equivalent.
3 units, spring and summer quarters (COESTER) MWF 1:05–2:05
Spring, 11; summer, 7

B156. Hispanic American Life and Literature.—Open to majors in any department. Knowledge of Spanish not required.
4 units, summer quarter (COESTER) MTWTh 1:05–2:05
Summer, 19

B162. Spanish Literature in the Eighteenth Century.
3 units (ALLEN) [Not given in 1929–30]

B188. Fonética Española.—Conferencias y ejercicios prácticos. Navarro Tomás, *Manual de Pronunciación Española.*
2 units (ESPINOSA) [Not given in 1929–30]

B200. Problems of Teaching Spanish.—A consideration of the important questions of Spanish pronunciation, grammar, reading, and literary interpretations, together with a discussion of the general questions of methods of teaching as applied to the teaching of elementary and advanced Spanish. Pedagogical bibliography and school texts. Practice teaching.
2 units (ESPINOSA) By arrangement
Autumn, 1; spring, 2; summer, 1

[Teachers' Course in Spanish.—See Education 222.]

III. PRIMARILY FOR GRADUATES

B201. Introduction to the Study of Old Spanish.—Lectures on Old Spanish Phonology and Morphology, with linguistic exercises based on *El Cantar de mío Cid.* Ford, *Old Spanish Readings.*
3 units (ESPINOSA) [Not given in 1929–30]

B202. Spanish Historical Grammar.—Lectures and study of Old Spanish texts.
3 units (ESPINOSA) By arrangement
Autumn, 1

B204. Old Spanish Literature.—Spanish literature from the earliest times to the beginning of the fifteenth century. Lectures, reading of texts, and assigned topics.
3 units (ALLEN) [Not given in 1929–30]

B220. Cervantes, *Don Quijote.*—Lectura e interpretación del *Quijote* con investigaciones especiales. Texto: Rodríguez Marín, ed. de *Clásicos Castellanos.*
3 units, winter quarter (ESPINOSA) MWF 10
Winter, 21

B240. Graduate Thesis.
3 to 5 units per quarter

B241. Origins of Spanish Drama.—A history of the drama from the earliest times to its full development with Lope de Vega. Lectures and collateral reading.
2 units (ALLEN) [Not given in 1929–30]

B251. Calderón.—Lectures and assigned topics.
2 units, autumn quarter (ALLEN) Th 11
Autumn, 5

B252. Lope de Vega.—Lectures and assigned topics.
3 units (ALLEN) [Not given in 1929–30]

B253. The Classical Dramatists.—Tirso de Molina, Ruiz de Alarcón, Rojas Zorilla, and Moreto.
3 units (ALLEN) [Not given in 1929–30]

B254. Cervantes.—Lectures and assigned topics.
3 units (ALLEN) [Not given in 1929–30]

B257. Seminary in Spanish-American Literature.—Lectures and assigned topics. Prerequisite: B153 or equivalent.
3 units, summer quarter (COESTER) T 2:05–4:05
Summer, 7

B258. La literatura española en la Edad Media.—Conferencias e investigaciones especiales sobre la literatura española de los siglos XII–XIII. Open only to properly qualified graduate students. Prerequisite: B140, or equivalent.
3 units, summer quarter (SOLALINDE) MWF 10
Summer, 7

B260. Seminary in Spanish Literature.—History of Spanish epic poetry with special attention to the Romancero. Lectures and investigations on special topics.
3 to 5 units (ESPINOSA) [Not given in 1929–30]

C. ITALIAN

I. Elementary and Intermediate Courses

C1. Elementary Italian.—Wilkins, *First Italian Book; Farina, Fra le corde di un contrabbasso.*
5 units, autumn quarter (STAUF) MTWThF 8
Autumn, 16

C2. Elementary Italian (continued).—Grandgent's *Italian Grammar.* Conversation. Wilkins and Marinoni, *L'Italia.* Goggio, *Due Commedie Moderne.* Prerequisite: C1, or equivalent.
5 units, winter quarter (STAUF) MTWThF 8
Winter, 9

C3. Elementary Italian (continued).—Review of grammar. Composition and conversation. Goldoni, *La Locandiera.* Manzoni, *I Promessi Sposi* (edit. Geddes and Wilkins). Prerequisite: C2, or equivalent.
5 units, spring quarter (STAUF) MTWThF 8
Spring, 5

C21. Second-Year Italian.—Review of grammar. Composition and conversation. Reading of selected prose and poetry of the nineteenth and twentieth centuries, with a minimum of translation and particular attention to pronunciation. Collateral reading and reports. Prerequisite: C3, or equivalent.
3 units, autumn quarter (SMITH) MWF 10
Autumn, 6

C22. Second-Year Italian (continued).—Prerequisite: C21, or equivalent.
3 units, winter quarter (SMITH) MWF 10
Winter, 4

C23. Second-Year Italian (continued).—Prerequisite: C22, or equivalent.
3 units, spring quarter (SMITH) MWF 10
Spring, 5

II. ADVANCED AND GRADUATE COURSES

C111. Third-Year Italian Composition.—Translation of connected English prose into Italian. Original composition. Conducted in Italian. Prerequisite: C23, or four years of high-school Italian.
3 units (SMITH) [Not given in 1929–30]

C112. Third-Year Italian Composition (continued).
3 units (SMITH) [Not given in 1929–30]

C140. Lectures on Italian Literature (in English).—Lectures on the principal Italian writers. Reading of their works in translation. Added credit is given to students who do their reading in Italian.
2 to 4 units (ANDERSON) [Not given in 1929–30]

C150. Dante and the *Divine Comedy* (in English).—Reading and interpretation of the *Divine Comedy* (in translation), lectures on Dante and the *Divine Comedy*, and the principal problems of medieval life and thought reflected in the poem. Outside reading and reports. Open to juniors and seniors in all departments.
2 units, winter quarter (JOHNSTON) MWF 10
Winter, 16

C151. Advanced Italian.—Dante, *La Divina Commedia*. Study and interpretation of the text; discussion of the literary problems of the poem.
3 units (JOHNSTON) [Not given in 1929–30]

C152. Advanced Italian (continued).
3 units (JOHNSTON) [Not given in 1929–30]

C153. Advanced Italian (continued).
3 units (JOHNSTON) [Not given in 1929–30]

C170. Italian Classics of the Thirteenth and Fourteenth Centuries (exclusive of the *Divine Comedy*).—Reading and interpretation of representative selections.
3 units (SMITH) [Not given in 1929–30]

C171. Italian Classics of the Thirteenth and Fourteenth Centuries (continued).
3 units (SMITH) [Not given in 1929–30]

C172. Italian Classics of the Fifteenth and Sixteenth Centuries.—Reading and interpretation of representative selections.
3 units (SMITH) [Not given in 1929–30]

C173. Italian Classics of the Fifteenth and Sixteenth Centuries (continued).
3 units (SMITH) [Not given in 1929–30]

D. PORTUGUESE

D1. Elementary Portuguese.—Drill on pronunciation. Elements of grammar. Reading of easy texts.
5 units, autumn quarter [Not given in 1929–30]

D2. Elementary Portuguese (continued).—Grammar. Composition. Conversation. Reading. Prerequisite: D1, or equivalent.
5 units, winter quarter [Not given in 1929–30]

D3. Elementary Portuguese (continued).—Prerequisite: D2, or equivalent.
5 units, spring quarter [Not given in 1929–30]

E. GENERAL ROMANCE PHILOLOGY

Primarily for Graduates

E201. Phonetics and General Linguistics.—Lectures on phonetics and the philosophy of grammar, the illustrations being taken chiefly from the history of Latin and Romanic languages.
4 units (Anderson) [Not given in 1929–30]

E202. The Romantic Movement.—Lectures in English giving a comparative view of romanticism in European and American literatures; assigned readings in English, French, or Spanish to meet the needs of the student. Open to graduates and undergraduates.
3 units (Coester) [Not given in 1929–30]

E210. Introduction to the Study of Old Provençal.—Reading of selected passages from Appel's *Provenzalische Chrestomathie,* with a study of Old Provençal Phonology and Morphology.
3 units (Johnston) [Not given in 1929–30]

E211. Romance Versification.—The fundamental principles of Romance verse structure, with particular attention to French and Spanish, lectures and practical exercises.
3 units, autumn quarter (Espinosa) MWF 10
Autumn, 6

[Vulgar Latin and Introduction to Romance Philology.—See Classical Literature B222.]

[Petronius.—See Classical Literature B281.]

F. GENERAL COURSES

[These series F1, 2, 3, 4, and F101, 102, 103, 104, are offered in alternate years.]

Undergraduate Courses

[These courses are given in English. A reading knowledge of French is desirable but not required. Prerequisite: a course in European History.]

F1. French Civilization.—The Foundations and the Middle Ages.
2 units (Guérard) [Not given in 1929–30]

F2. French Civilization.—The Classical Age.
2 units (Guérard) [Not given in 1929–30]

F3. French Civilization.—The Nineteenth Century.
2 units (Guérard) [Not given in 1929–30]

F4. French Civilization.—The Twentieth Century.
2 units (Guérard) [Not given in 1929–30]

Advanced and Graduate Courses

[These courses are conducted entirely in French. Prerequisites: A23 or its equivalent and a course in European History.]

F101. French Civilization.—The Foundations and the Middle Ages.
2 units, autumn quarter (Guérard) TTh 8
Autumn, 8

F102. French Civilization.—The Classical Age.
2 units, winter quarter (Guérard) TTh 8
Winter, 14

F103. French Civilization.—The Nineteenth Century.
2 units, spring quarter (Guérard) TTh 8
Spring, 7

F104. French Civilization.—The Twentieth Century.
2 units (Guérard) [Not given in 1929–30]

SLAVIC

HENRY LANZ, Assistant Professor

SLAVIC LANGUAGES

A1. Elementary Russian.—It is the object of this course to put the students in possession of the elements of the Russian language. Beginning with a study of the alphabet, it covers the course in morphology, syntax, simple conversation, and reading of the easy Russian texts (short stories of Leo Tolstoy). Bondar, *Simplified Russian Method.*
4 units, autumn quarter (LANZ) MTThF 8
Autumn, 6

A2. Elementary Russian (continued).—The study of the aspects of the verbs and advanced practice in conversation and reading.
4 units, winter quarter (LANZ) MTThF 8
Winter, 6

A3. Elementary Russian (continued).—Thorough review of grammar; reading and conversation (Bondar).
4 units, spring quarter (LANZ) MTThF 8
Spring, 6

A4. Commercial Russian.—The object of this course is merely practical; it is intended to put the students in possession of the commercial vocabulary and make them able to transact business in Russian language. Special attention is given to the composition of business letters. Prerequisites: Slavic A1, A2, A3.
4 units, summer quarter (LANZ) [Not given in 1929–30]

A6. Conversational Russian.—For the beginners.
2 units, summer quarter (LANZ) [Not given in 1929–30]

A21. Second-Year Russian.—Reading of Pushkin and Turgenev. Practice in conversation and composition on the basis of the material read. Forbes, *Russian Grammar.*
3 units, autumn quarter (LANZ) By arrangement
Autumn, 1

A22. Second-Year Russian.—Chekhov, Stories.
3 units, winter quarter (LANZ) By arrangement
Winter, 1

A23. Second-Year Russian.—Reading of modern prose and poetry.
3 units, spring quarter (LANZ) MWF 9
Spring, 1

A105. Individual Work.—Translation of documents in the Hoover collection.
(LANZ) By arrangement
Autumn, 3; winter, 1

A131. Third-Year Russian.—Individual work.
3 units, autumn quarter (LANZ) By arrangement
Autumn, 2

A132. Third-Year Russian.—Individual work.
3 units, winter quarter (LANZ) By arrangement
Winter, 1

A133. Third-Year Russian.—Individual work.
3 units, spring quarter (LANZ) By arrangement
Spring, 1

SLAVIC LITERATURE

C1. Slavic Civilization.—This course is intended to acquaint students with the elements of Slavic history, literature, and art. Lectures in English, readings from English translations.
2 units, autumn quarter (LANZ) TTh 10
Autumn, 54

C100. Russian Realism.—It is an attempt to present the literary history of Russia as an evolution of realistic forms. Special attention is paid to the literature of the nineteenth century. Knowledge of Russian is not required. (This course is acceptable for credit toward the degree of Bachelor of Arts in the School of Letters if combined with Course C100*a*.)
5 units, autumn and *spring quarters (LANZ) MTWThF 9
Autumn, 29; spring, 99

C100a. Russian Realism. (Supplementary Course.)—A reading course in Russian to be taken in conjunction with Course C100.
No credit (LANZ) By arrangement

C101. Polish Romanticism.—It is the object of this course to explain the development of Polish literature in the light of the social and historical conditions that lead to the growth of Romanticism in Poland. Knowledge of Polish is not required.
2 units, winter and spring quarters (LANZ) TTh 9
Winter, 15; spring, 1

C102. Leo Tolstoy.—His life and work. Special attention paid to exposition and criticism of Tolstoy's philosophical and religious doctrines. Lectures and readings from English translations. (This course is acceptable for credit toward the degree of Bachelor of Arts in the School of Letters if combined with Course C102*a*.)
3 units, winter quarter (LANZ) MWF 9
Winter, 21

C102a. Leo Tolstoy. (Supplementary Course.)—A reading course in Russian to be taken in conjunction with Course C102.
No credit (LANZ) By arrangement

C103. Theodore Dostoyevsky.—His life and work. (This course is acceptable for credit toward the degree of Bachelor of Arts in the School of Letters if combined with Course C103*a*.)
2 units, spring quarter (LANZ) [Not given in 1929–30]

C103a. Theodore Dostoyevsky. (Supplementary Course.)—(A reading course in Russian to be taken in conjunction with Course C103.)
No credit (LANZ) [Not given in 1929–30]

C104. Russian Literature of the Twentieth Century, with special emphasis on the revolutionary period.
2 units, winter quarter (LANZ) TTh 10
Winter, 51

C105. History of Slavic Literatures.—This is a course specially designed for the students of the summer quarter. It is intended to give a brief account of the folklore and literatures of Slavic nations, including Russia, in connection with their history and their religious development. Lectures in English, and readings from English translations.
5 units, summer quarter (LANZ) [Not given in 1929–30]

C106. Russian Art.—This course is a systematic attempt to explain the development, the underlying principles, and the experimental technique of Russian art in its four principal divisions: architecture, painting, sculpture, and music. The problems of stage presentation will be discussed in connection with modern developments in Russian opera. Special attention is paid to modern art, the study of which is greatly facilitated by the excellent art collection now in possession of the Hoover War Library. The course is conducted with the use of lantern slides.

2 units, summer quarter (LANZ) [Not given in 1929–30]

LIBRARY

GEORGE THOMAS CLARK, Director of the University Libraries, Emeritus

NATHAN VAN PATTEN, Director of the University Libraries
CHARLES V. PARK, Assistant Librarian
HELEN BINNINGER SUTLIFF, Chief Cataloguer
ALICE NEWMAN HAYS, Reference Librarian
ELIZABETH HADDEN, Chief of Order Division
MINNA STILLMAN, Document Librarian
LOUISE OPHÜLS, Medical Librarian
NINA ALMOND, Hoover War Librarian
JAMES EMMET BRENNER, Law Librarian
SOLON SHEDD, Curator, Branner Geological Library

The Library is open during term time on week days from 8:00 A.M. to 10:00 P.M., except on Saturdays, when it is closed at 5:00 P.M. The Sunday hours are from 2:00 P.M. to 6:00 P.M. During vacations the hours are from 8:30 A.M. to 4:30 P.M., Saturdays to 12:30 P.M. The shelves are open to members of the faculty and, on the recommendation of their instructors, to students engaged in advanced work. Books, other than works of reference, not required for class use or otherwise restricted, are available under prescribed rules for circulation to those entitled to the privileges of the Library. A handbook giving information relative to the Library and how to use it has been published and may be obtained upon request.

The Library may be used by all registered students without the payment of additional fees. Visitors regularly attending lecture courses or other University exercises, but not registered, are entitled to the privileges of the Library upon payment of a fee of $1.25 per quarter.

Including the departments of Law and Medicine, the Library contains upward of 450,000 volumes, and its maintenance and growth are insured by the income of the Jane Lathrop Stanford Jewel Fund, certain other special funds, and by fees.

The Library building is well adapted to meet the needs of advanced and graduate students. It contains eight rooms in which seminar classes may be held and one large room which serves as a reading-room for students in seminar classes; and tables on each floor of the stack make it possible for any graduate student to work in easy reach of the material in his field.

On the first floor—in the Hoover War Library and in the Document Room—are two collections of especial interest to research workers in the fields of history and economics.

The Document Division brings together the Library's collection of city, state, and federal documents. It is especially strong in the publications of the United States, Great Britain, Canada, and Australia, and those of other countries are being added as fast as circumstances permit. The collection now numbers 43,000 volumes besides much unbound material.

The Hoover War Library contains some 150,000 printed and manuscript items on all aspects of the World War, 1914–18, and for the period of reconstruction since the war. It is rich in government documents, in delegation propaganda at the peace conferences, in files of the publications of social

and political societies, and in newspapers. A special reading-room facilitates the use of the collection.

The Hopkins Railway Library.—A collection of more than 10,000 volumes and pamphlets dealing with the subject of transportation. In 1892 Mr. Timothy Hopkins, of San Francisco, presented to the University his private library on railroads—about 2,000 books—personally providing for its maintenance and growth for many years. The collection is general in scope, intended to include all subjects touching on the building, maintenance, and operation of railways; and is especially rich in state and federal reports, as well as in reports of individual railroads both in the United States and Europe, with much material pertaining to their history.

Important divisions of the University Library, although separately housed, are:

The Charlotte Ashley Felton Memorial Library.—Established in 1929 by Mrs. Kate Felton Neilson. This collection of 2,500 volumes is devoted to first and other rare editions of American and English authors of the nineteenth and twentieth centuries. It is rich in bibliographical material relating to this period. The donor has provided liberally for its maintenance and development.

The Law Library.—A library of about 35,000 volumes, selected with care and adequate for the study of English and American law. It contains practically complete sets of the reports of the courts of England, Scotland, Ireland, Canada, the United States, and the several states, together with a valuable collection of statutes, treatises, and periodicals.

The Lane Medical Library.—Founded by the directors of Cooper Medical College in accordance with the bequest of Mrs. L. C. Lane, and located opposite the other medical buildings, on the corner of Sacramento and Webster Streets, San Francisco. The library contains about 70,000 volumes and is particularly rich in its collection of medical and allied periodicals.

Two important special collections are the Barkan library of ophthalmology and oto-laryngology, endowed by Dr. A. Barkan, professor emeritus of ophthalmology, and the library on the history of medicine, also endowed by Dr. Barkan. The latter library contains about 5,000 volumes.

The Jordan Library of Zoölogy.—A collection consisting largely of works on ichthyology, to a considerable extent made up of author's separates, which have been accumulated by Chancellor Jordan and members of the Department of Zoölogy, bound in convenient form, indexed, and catalogued. The older authorities including Cuvier, Lacépède, Bloch, Bleeker, and Günther are well represented. These, supplemented by the proceedings of various societies and institutions, make a collection of great value to advanced students and investigators. The library is conveniently arranged in the Natural History Museum, near the laboratories and collections.

The Biology Library.—The Biology library, in Jordan Hall, is a combination of the former department libraries of Botany, Physiology, Zoölogy, and Entomology, with some works on general biology, and now comprises about 5,000 volumes, together with current files of 125 periodicals.

The Branner Geological Library.—The geological library (Room 333) is the result of twenty-five years of painstaking acquisition by Dr. John Casper Branner. It includes material relating to geology, paleontology, mineralogy, geography, mining, and metallurgy, and is well equipped with files of journals and transactions of scientific societies, and state and government reports.

SCHOOL OF MEDICINE

William Ophüls, Dean
Arthur Leonard Bloomfield, Secretary of the Medical Faculty

ADMISSION TO THE SCHOOL OF MEDICINE

The first-year class in the School of Medicine is limited to fifty students, selected on the basis of scholarship and promise immediately after July 15 in 1929 (in 1930, the date is May 15) from those applicants who fulfill the following requirements:

1. Graduation from high school (or its equivalent), comprising fifteen recommended units, as defined by the University for admission to the Lower Division. (*Special students* are not admitted to registration in Medicine.)

2. Three full years of college work, totaling 135 quarter units (or an equivalent number of semester units), of a grade equivalent to that of Stanford University (counting as many grade points as there are units).* The required work in these three years is that laid down by the Association of American Medical Colleges in Physics, Chemistry, Biology, and English, together with a reading knowledge of either French or German, and additional work in Chemistry and Biology as indicated below.

3. In addition to the A.A.M.C. minimum in Chemistry, the University requires Quantitative Analysis.

4. In Biological Science the University requires 15 quarter units, or 10 semester units, made up of courses in General Zoölogy (or General Biology), Comparative Anatomy of the Vertebrates, and General Vertebrate Embryology, substantially equivalent to the courses in those subjects given at Stanford University as indicated below.

No conditions are permitted.—Candidates for admission who, in June, 1930, will have completed the requirements above, except for a few units in collegiate subjects, should plan to make up these deficiencies in full by attendance at summer sessions during the summer of 1930.

In practice the foregoing requirements as applied to the pre-medical courses of Stanford University students work out about as follows:

Chemistry

Chemistry 10 (General Inorganic Chemistry), 4 units.
Chemistry 11 (General Inorganic Chemistry), 4 units.
Chemistry 12 (General Inorganic Laboratory), 4 units.
Chemistry 111 and 112 (Quantitative Analysis), 5 units.
Chemistry 121 and 123 (Organic Chemistry), 6 units.

Students without entrance credit in Chemistry take Courses 1, 2, 3, and 4, instead of 10, 11, and 12. Total, 23 (or 26) quarter units; 15⅓ (or 17⅓) semester units.

Physics

Physics 1 (Mechanics and Heat), 5 units.
Physics 2 (Electricity), 4 units.

* The revised system, beginning October, 1930, will require twice as many grade points as units.

Physics 3 (Lenses), 1 unit.
Physics 100 or 101 (Modern Physics), 3 units.
Total, 13 quarter units (8⅔ semester units).

Biology

Zoölogy 1 (General Zoölogy), 5 units or (Biology 1 and 2, 9 units).
Zoölogy 2 (Comparative Anatomy of the Vertebrates), 5 units.
Anatomy 112 (Mammalian Embryology), 5 units.
Total, 15 quarter units (10 semester units).

English

Nine quarter units (6 semester units).

French or German Reading Knowledge

This requirement varies somewhat with the ability of the student, but implies at least the equivalent of a year's work of 15 quarter units, based upon high-school courses.

APPLICATION FOR ADMISSION

Applicants for admission to the School of Medicine, or for advanced standing in Medicine, should communicate with The Registrar, Stanford University, California; those desiring information concerning the upper classes of the School of Medicine (i.e., from the fifth to the twelfth quarters), should communicate with The Dean, Stanford University School of Medicine, 2398 Sacramento Street, San Francisco, California.

THE CURRICULUM IN MEDICINE

The required period of study for the degree of Doctor of Medicine is twelve quarters plus the interne year. The work of the first four quarters is given at Stanford University and is devoted to anatomy, bacteriology, biochemistry, histology, neurology, and physiology. The next eight quarters are devoted to work in the pharmacological, pathological, and clinical laboratories, and in the hospital wards and the out-patient department in San Francisco. The last year is spent in hospital work.

In order to correlate the work of some of the departments and to facilitate research in others, all courses in Medicine, except those in anatomy, bacteriology, biochemistry, and physiology, are given in San Francisco. By reducing the number of required hours to approximately the number decided upon by the Association of American Medical Colleges, the student's opportunity for taking optional and elective courses has been increased and time obtained for thesis work.

FEES

The tuition fee for all students registering in the School of Medicine is $100 per quarter;* the hospital fee for students registered at San Francisco is $5 per quarter. The community fee for all students, except those registered at San Francisco, is $13 per quarter. This fee covers the privileges of the gymnasia, athletic grounds, hospitals, the Stanford Union or Women's

* For increased fee to be charged, beginning with the autumn quarter of 1930, see page 128.

Clubhouse, and membership in the Associated Students. There is also a pavilion fee of $1 per quarter assessed upon all undergraduates by the Associated Students.

A deposit of $20 is required of all students selected for the first-year class, payable within ten days after notification of their acceptance. This deposit is not returnable, but is applied upon the fees of the first quarter. A deposit to cover breakage or loss of apparatus and materials may be required in any department, such deposits being returnable, less charge for breakage, loss, or wear and tear of apparatus. Students taking the fifth and sixth quarters in Medicine at San Francisco will be required to pay a deposit of $3 at the Business Office of Lane Hospital to cover breakage, or loss of apparatus of the Department of Pharmacology. The total deposits for this purpose may vary from $10 to $20 per annum. Drafts and checks should be drawn for the exact amount to the order of Stanford University School of Medicine, as no change can be returned to students on checks or drafts.

ANATOMY

Arthur William Meyer, Charles Haskell Danforth, Frank Mace McFarland, Clara S. Stoltenberg, Professors
John Eldridge Markee, Homer Newton Violette, Instructors
Herlwyn R. Green, Acting Instructor

[For outline of courses see under Anatomy, pp. 179–181.]

BACTERIOLOGY AND EXPERIMENTAL PATHOLOGY

Edwin William Schultz, Wilfred Hamilton Manwaring, Professors
Earle Thomas Dewey, Assistant Professor
Charles Egolf Clifton, Instructor

[For outline of courses see under Bacteriology and Experimental Pathology, pp. 181–184.]

CHEMISTRY

Robert Eckles Swain, Professor
James Murray Luck, Assistant Professor

Biochemistry.—(See Courses 141 and 143, Department of Chemistry.)
4 units (40 hours), autumn and winter quarters (Luck) TTh 8

Biochemistry.—(See Courses 142 and 144, Department of Chemistry.)
4 or 6 units (120 or 180 hours), autumn and winter quarters (Luck)
MTW 1:05–4:05

[Students enrolled as medical students in Courses 142 and 144 will be required to deposit a breakage fee of $5 for two units of credit, and $7.50 for three units; other University students will pay the usual fee of $15 for 2 units of credit, and $20 for 3 units.]

MEDICINE

Charles Miner Cooper, Clinical Professor Emeritus

Arthur Leonard Bloomfield (Executive), Thomas Addis, George de Forest Barnett, W. Edward Chamberlain (Radiology), Henry George Mehrtens (Neuropsychiatry), Professors

Harry Everett Alderson, William Fitch Cheney, William Redwood Price Clark, †Harold Phillips Hill, Allen Kramer Krause, Walter Frank Schaller, Clinical Professors

William Dock, Harry Leslie Langnecker, Robert Reid Newell, Harry Alphonso Wyckoff, Associate Professors

Walter Whitney Boardman, Horace Gray, Thomas George Inman, Philip Hale Pierson, Jay Marion Read, Stuart C. Way, Julian Wolfsohn, Associate Clinical Professors

John Kent Lewis, Assistant Professor

Joseph Henry Catton, James Arthur Cutting, †Norbert J. Gottbrath, Samuel H. Hurwitz, Arthur Aloysius O'Neill, John Morse Rehfisch, Assistant Clinical Professors

Helen Marshall, Instructor

Donald Alfonso Carson, Garnett Cheney, Esther Bridgman Clark, Joseph Charles Cuneo, Leo Henry Garland, Willard E. Kay, Thomas Henshaw Kelly, William Kenney, Arthur Carol McKenney, Jr., Roger Bain McKenzie, Merlin T. R. Maynard, Laird M. Morris, Elizabeth G. Nicholls, Pearl Sylva Pouppirt, Walter Schilling, Dwight Emerson Shephardson, Julius Sherman, Edward F. Stadtherr, Pleasant A. Taylor, Clinical Instructors

William George Burkhard, David Kiong Chang, Lambert B. Coblentz, Monica Donovan, John L. Fanning, Charles D. Fletcher, Charles Dudley Gwinn, Bernard Kaufman, Edward Matzger, Ruth Allen Nethercut, William Wise Newman, Elwood Richard Olsen, Esteban Reyes, Ralph Arthur Reynolds, Martin J. Seid, Beverly Simpson, Assistants

Charles Gurchot, Frances Rhodes Watson, Assistants in Research (Neurology and Pharmacology)

Howell Lovell, Lecturer on Legal Medicine

John Lockhart Campbell, Clinic Dentist

DIVISIONS

Neuropsychiatry — Radiology — Cutaneous Medicine and Syphilis
Physiotherapy — Tuberculosis

Instruction in the Department of Medicine normally commences in the fifth quarter of medical registration, at which time the courses in Physical Diagnosis and Clinical Pathology are started. These courses are prerequisite for most other courses in this department.

Before beginning the interne year, students are required: (1) to have completed the prescribed courses, and (2) to have passed a final examination in Internal Medicine, Neurology, and Cutaneous Medicine.

†Absent on leave, 1929–30.

Deviations from this general plan of work will be permitted only after obtaining permission of the instructors involved and of the Executive Head of the Department of Medicine.

COURSES FOR SECOND-YEAR STUDENTS

201. Introduction to Clinical Medicine.—Preliminary demonstrations and practice in the methods of physical diagnosis followed by bedside work in which abnormal physical findings are correlated with symptoms and laboratory data.

6 hours (120 hours), winter and spring quarters (BARNETT) (San Francisco Hospital) TThS 8:30–10:30

Winter, 48; spring, 48

202. Clinical Pathology.—Lectures and laboratory work. The usual methods of examining the urine, blood, sputum, gastric contents, feces, and cerebro-spinal fluid are carried out by the student and the significance of abnormalities is noted.

4 hours (80 hours), winter and spring quarters (WYCKOFF) (winter) (Room 312b) W 9:30–11:30, F 10:30–12:30 (spring) WF 9:30–11:30

Winter, 48; spring, 48

203. Radiology.—Section work: Lane Hospital.

2 hours (20 hours), winter quarter (CHAMBERLAIN, NEWELL) TF 4–5

Winter, 48

COURSES FOR THIRD-YEAR STUDENTS

The third-year class is divided into two sections, each of which is assigned for sixteen weeks to Lane Hospital and to the San Francisco Hospital.

Each section is subdivided into two sub-sections and assigned for eight weeks each to the Department of Medicine and to the Departments of Surgery and Gynecology and Obstetrics.

The students assigned to Medicine at Lane Hospital and at San Francisco Hospital do bedside work in general Medicine and Neurology.

During the assignment to the San Francisco Hospital, students attend clinics on tuberculosis and other communicable diseases.

204. Ward Work in General Medicine: Lane Hospital.

9 hours (72 hours) (BLOOMFIELD, CHENEY, and STAFF) MTWThFS mornings

First semester, 22; second semester, 21

205. Ward Work in General Medicine: San Francisco Hospital.

16 hours (128 hours) (BARNETT and STAFF) MTWThFS 8:30

First semester, 21; second semester, 22

206. Set Clinic in Medicine: Lane Hospital.

1 hour (16 hours), third year

1 hour (32 hours), fourth year (BLOOMFIELD) (Lane Hall) T 11:30–12:30

First semester, 71; second semester, 70

207. Set Clinic in General Medicine: San Francisco Hospital.

1½ hours (24 hours) (HILL) F 11–12:30

First semester, 21; second semester, 22

208. Neurology.—Ward work: Lane Hospital.

9 hours (36 hours) (INMAN, SCHALLER) MTWThFS mornings

First semester, 22; second semester, 21

209. Neurology.—Clinic: San Francisco Hospital.

1 hour (8 hours) (WOLFSOHN) Th 11:30–12:30

First semester, 21; second semester, 22

210. Tuberculosis Clinic: San Francisco Hospital.

1 hour (8 hours) (CLARK) (one-half of the class) S 9–11

First semester, 21; second semester, 22

211. Communicable Diseases Clinic: San Francisco Hospital.
1 hour (8 hours) (O'Neill) (one-half of the class) S 9–11
First semester, 21; second semester, 22

212. Clinical-Radiological Conference: Lane Hospital.
1 hour (16 hours), third year
1 hour (32 hours), fourth year (Chamberlain, Bloomfield, and Staffs) (Lane Hall) M 11:30–12:30
First semester, 71; second semester, 70

213. Out-Patient Clinic, Minor Medicine, and Surgery.
1 hour (16 hours), third year
1 hour (32 hours), fourth year (Lane Hall) S 11:30–12:30
First semester, 71; second semester, 70

214. Clinical Demonstrations of Special Topics in Internal Medicine.
1 hour (31 hours) (Dock and Staff) (Lane Hall) TTh 3:30–4:30
Autumn, 43; winter, 43; spring, 43

COURSES FOR FOURTH-YEAR STUDENTS

All of the work of the fourth year is given at Lane Hospital and the School of Medicine. For work in the Out-Patient Department the class is divided into eight sections which are assigned in rotation to the various clinics. During the time assigned to the Department of Medicine, students work in General Medicine, Neurology, and Dermatology and Syphilis.

All students of the fourth year are required to attend Courses 206, 212, and 213.

215. Out-Patient Department, General Medicine.
12 hours (96 hours) MTWThFS 9:30–11:30
First semester (96 hours) 19, (48 hours) 12; second semester (96 hours) 12, (48 hours) 18

216. Out-Patient Department, Neurology.
12 hours (48 hours) MTWThFS 9:30–11:30
First semester, 24; second semester, 25

217. Out-Patient Department, Dermatology and Syphilis.
12 hours (48 hours) (Alderson and Staff) MTWThFS 9:30–11:30
First semester, 25; second semester, 24

218. Psychiatry.—Lectures and Clinics.
2 hours (40 hours), autumn and winter quarters (Lane Hall) M 1:30–3:30
1 hour (10 hours), spring quarter M 1:30–2:30
(Mehrtens, Cutting)
Autumn, 49; winter, 49; spring, 49

219. History of Medicine.—In association with other departments.
1 hour (10 hours), spring quarter (Lane Library) M 3:30–4:30
Spring, 49

220. Physical Therapeutics.—Lectures and demonstrations. Given in sections of one-third of the class.
1 hour (10 hours), spring quarter (Langnecker) M 2:30–3:30, WF 1:30–2:30
Spring, 49

221. Legal Medicine.
1 hour (10 hours), spring quarter (Lane Hall) M 8:30–9:30
Spring, 49

ELECTIVE COURSES

1. Ward Rounds in Medicine.—For fourth-year students only. Limited to twelve students.
3 hours (30 hours) 8:30–9:30 By arrangement
First semester, 47; second semester, 48

2. Ward Rounds in Neurology.—For fourth-year students only. Limited to six students.
3 hours (30 hours) 8:30–9:30 By arrangement
Second semester, 2

3. Mental Rating in Neuropsychiatry.—Limited to four students.
1 hour (10 hours) (MARSHALL) By arrangement

4. Diseases of the Endocrine Glands.—Clinics and recitations.
Spring quarter (KAY) By arrangement
Spring, 36

5. Radiology.—Special work in consultation with the division of Radiology. Either therapy or diagnosis may be followed.
(CHAMBERLAIN, NEWELL) By arrangement
Autumn, 21; winter, 20

6. Roentgenoscopy.—Experience in the actual use of the fluoroscope. Limited to two students per section.
(CHAMBERLAIN, NEWELL) By arrangement
Autumn, 18; winter, 20; spring, 18

7. Brights Disease and Diabetes.—Diagnosis and treatment. Clinics and laboratory work. During summer quarter only.
(ADDIS, SHEPARDSON) By arrangement

8. Dentistry for Medical Students.—Five lectures covering the anatomy and pathology of the teeth, treatment of caries, dental surgery, prosthetic dentistry, orthodontia, and preventive dentistry. For third- and fourth-year students.
Spring quarter (CAMPBELL) By arrangement
Spring, 27

OBSTETRICS AND GYNECOLOGY

ALFRED BAKER SPALDING, Professor
C. FREDERIC FLUHMANN, Associate Professor
LUDWIG AUGUSTUS EMGE, KARL LUDWIG SCHAUPP, HENRY AUGUSTUS STEPHENSON, WILLIAM EMERSON STEVENS, Associate Clinical Professors
HANS VONGELDERN, ALBERT VICTOR PETTIT, Assistant Clinical Professors
ROBERT GLENN CRAIG, DONALD ALEXANDER DALLAS, WILLIAM COTT HOBDY, LEWIS MICHELSON, Clinical Instructors

REQUIRED COURSES FOR SECOND-YEAR STUDENTS

201. Obstetrics, Histology.—Lecture one hour, laboratory one hour a week.
2 hours (20 hours), winter quarter (VONGELDERN) (Room 506) F 8:30–10:30
Winter, 48

202. Obstetrics.—Normal pregnancy, labor and puerperium.
2 hours (20 hours), winter quarter (FLUHMANN) (Room 506) M 9:30–10:30
W 8:30–9:30
Winter, 48

203. Gynecology.—Lectures.
2 hours (20 hours), spring quarter (EMGE) (Room 506) WF 8:30–9:30
Spring, 48

REQUIRED COURSES FOR THIRD-YEAR STUDENTS

204. Obstetrics.—Abnormal pregnancy, labor and puerperium, and obstetrical operations.
1 hour (31 hours), autumn, winter, and spring quarters (Spalding) (Room 515) M 3:30–4:30
Autumn, 43; winter, 43; spring, 43

205. Ward Rounds: Lane Hospital.—Obstetrics and gynecology.
2 hours (16 hours), autumn, winter, and spring quarters (Craig, Stephenson) TS 8:30–9:30
First semester, 22; second semester, 21

206. Ward Rounds: San Francisco Hospital.—Obstetrics and gynecology.
1 hour (8 hours), autumn, winter, and spring quarters (autumn and winter, Schaupp, vonGeldern; spring, Emge, Pettit) F 8:30–9:30
First semester, 21; second semester, 22

207. Ward Work: Lane Hospital.—Gynecology.
2 hours (27 hours), autumn, winter, and spring quarters (Assistant Resident) Daily 9:30–11:30
First semester, 22; second semester, 21

208. Ward Work: San Francisco Hospital.—Gynecology.
2 hours (27 hours), autumn, winter, and spring quarters (House Officer) Daily 9:30–11:30
First semester, 21; second semester, 22

209. Attendance on Deliveries.—Each student is required to witness ten deliveries either in Lane Hospital or San Francisco Hospital.
1 hour (10 hours), autumn, winter, and spring quarters (Junior Interne)

REQUIRED COURSES FOR FOURTH-YEAR STUDENTS

210. Manikin Exercises.—One-half of class on Wednesday, other half on Friday.
1 hour (10 hours), autumn quarter (vonGeldern, Pettit) (Room 506) WF 1:30–2:30
Autumn, 49

211. Women's Clinic.—Obstetrics, gynecology and urology in women.
2 hours (48 hours), autumn, winter, and spring quarters (Spalding and Staff) Daily 9:30–11:30
First semester, 24; second semester, 25

ELECTIVE COURSES

212. Gynecology, Pathology.—Laboratory two hours a week. Fourth-year students.
2 hours (20 hours), spring quarter (Fluhmann) (Room 405) Th 3:30–5:30
Spring, 24

213. Prenatal Clinic.—Limited to four students for periods of one month. Seniors.
2 hours (8 hours), autumn, winter, and spring quarters (Assistant Resident) W 1:30–3:30
Autumn, 12; winter, 12; spring, 8

214. Out-Patient Obstetrics.—For periods of ten days, students electing this course will be excused from other class duties while attending the delivery of patients in their homes. Seniors.
(70 hours), autumn, winter, and spring quarters (Assistant Resident)

PATHOLOGY

William Ophüls, Professor
Edward Merchant Butt, Instructor
Eshref Shevky, Assistant in Research

The following courses in Pathology are required of medical students: Pathology 201, two quarters; Pathology 203, three quarters; Pathology 204, three quarters.

COURSE FOR SECOND-YEAR STUDENTS

201. General Pathology.—A course of lectures, demonstrations, and laboratory work which covers disturbances in circulation, regressive and progressive tissue changes, inflammation, granulomata, and tumors. The study of human material is supplemented by experiments. Two lectures of 1 hour and two laboratory periods of 2½ hours each per week in the winter quarter, and one lecture of 1 hour and two laboratory periods of 2½ hours each week in the spring quarter. Prerequisites: Histology, Bacteriology.

7 hours (70 hours), winter quarter
6 hours (60 hours), spring quarter (Ophüls, Butt)
(Room 405) (winter) M 8:30–9:30, S 11:30–12:30, MF 1:30–4
(spring) M 8:30–9:30, MF 1:30–4

Winter, 48; spring, 48

COURSE FOR THIRD-YEAR STUDENTS

203. Special Pathology.—A course of demonstrations of fresh and preserved gross and microscopical specimens, illustrating selected chapters of Human Pathology. Part of the time is devoted to the technic of postmortem examinations. Diagnostic work is done in the spring quarter. Prerequisite: General Pathology.

4 hours (124 hours), autumn, winter, and spring quarters (Ophüls)
(Morgue, Lane Hospital) W 2:30–4:30; (Room 405) T 2:30–3:30, Th 1:30–2:30

Autumn, 43; winter, 43; spring, 43

COURSES FOR FOURTH-YEAR STUDENTS

204. Clinico-Pathological Demonstrations.—Three quarters required. During the summer quarter this is given by request.

1 hour (31 hours), autumn, winter, and spring quarters (Oliver)
(Morgue, Lane Hospital) W 11:30–12:30

Autumn, 49; winter, 49; spring, 49

205. Research Work in the Pathological Laboratory.—Students wishing to do special work in the Pathological Laboratory should have finished Course 201. They should consult with the Executive of the Department in regard to the selection of a proper subject for investigation. As the laboratory accommodations are limited, students must do a reasonable amount of work, otherwise the privilege will be withdrawn. A deposit of $10 will be required to cover such material as is used by the student in the course of his work. Such part of this as is not drawn against will be refunded on the completion of the work undertaken. Work may be undertaken during any of the four quarters. The same regulations apply to work on theses or for advanced degrees in the department, except that in the latter case the students also should have finished Course 203.

During the summer quarter a special effort will be made to accommodate properly prepared undergraduates or graduates who wish to do experimental work in Pathology.

(Ophüls)

PEDIATRICS

HAROLD KNIEST FABER, Professor
LLOYD BLACKWELL DICKEY, Associate Professor
MARY H. LAYMAN, †HERBERT HENRY YERINGTON, Associate Clinical Professors
JOHN JOSEPH KINGSTON, JAMES CLIFFORD PARROTT, ROLAND P. SEITZ, Assistant Clinical Professors
RALEIGH W. BURLINGAME, Clinical Instructor
RUTH GARLAND BOWES, FANNIE HADDEN, Assistants
ADELAIDE BROWN, Lecturer on Child Hygiene
GEORGE DUNLAP LYMAN, Lecturer on Pediatrics

COURSES FOR THIRD-YEAR STUDENTS

The third-year class will be divided into four sections assigned to bedside work in the Children's Wards of Lane Hospital, each for a period of eight weeks. By arrangement with the Department of Medicine students will divide their time according to assignment of patients between the Medical Wards and the Children's Wards.

201. Ward Work in Pediatrics: Lane Hospital.
9 hours (36 hours) (FABER, DICKEY, LAYMAN, SEITZ) (Ward rounds T 9:30–10:30, F 8:30–9:30) MTWThFS mornings
First semester, 22; second semester, 21

202. Set Clinic in Pediatrics: Lane Hall.
1 hour (16 hours), third year
2 hours (32 hours), fourth year (FABER, DICKEY, LAYMAN) Th 11:30–12:30
First semester, 71; second semester, 70

COURSES FOR FOURTH-YEAR STUDENTS

203. Lectures in Child Welfare.
1 hour (10 hours), autumn quarter (BROWN) (Room 311) Th 8:30–9:30
Autumn, 49

204. Out-Patient Department, Pediatrics.
12 hours (48 hours) (DICKEY, LAYMAN, PARROTT, BURLINGAME) MTWThFS 9:30–11:30
First semester, 25; second semester, 24

Students will be assigned to Pediatrics in sections, each for four weeks. One-half of each section will be assigned for one-half of the period to work at the Isolation Hospital.

ELECTIVE COURSES FOR FOURTH-YEAR STUDENTS

1. Ward Rounds in Pediatrics.—Limited to 12 students.
3 hours (30 hours) (FABER, DICKEY, LAYMAN, SEITZ) MThS 8:30–9:30
Second semester, 12

2. Lectures on Communicable Diseases in Children.
1 hour (10 hours), spring quarter (O'NEILL) By arrangement

3. Lectures on Child Psychology, Normal and Abnormal.
1 hour (10 hours), winter quarter (LAYMAN) By arrangement

† Absent on leave, 1929–30.

PHARMACOLOGY AND THERAPEUTICS

Paul J. Hanzlik, Professor
Maurice Lane Tainter, Associate Professor
Russel van Arsdale Lee, Assistant Clinical Professor of Therapeutics
Charles Christian Johnson, Instructor
Andrew Benton Stockton, Instructor in Therapeutics
Frederick Proescher, Lecturer in Therapeutics
Charles Gurchot, Frances Rhodes Watson, Assistants in Research (Neurology and Pharmacology)

REQUIRED COURSES FOR SECOND-YEAR STUDENTS

201. Chemical Pharmacology.—The course treats of the physical and chemical aspects of drug actions, including exercises on typical pharmaceutical preparations, principles of prescription writing, general toxicology, etc. The work consists of demonstrations, class practice, and conferences.

Didactic, 16 hours; laboratory, 32 hours; total 48 hours; given during the first 8 weeks of the winter quarter (Tainter, Johnson)
Winter, 49 Didactic MW 11:30–12:30, Lab. TTh 1:30–3:30

202. Experimental Pharmacodynamics.—This course consists of demonstration and class experiments with living tissues and animals and illustrates the actions of drugs and methods of experimental analysis. Nearly one-half of the periods is devoted to demonstrations by the instructors and the remainder is given to class practice and to discussion of the results in conferences. The work of Courses 201 and 202 forms the basis of other courses in the department.

Conferences, 24 hours; laboratory, 48 hours; total 72 hours; given during the last 2 weeks of the winter and all of the spring quarters (Hanzlik, Tainter, Johnson)
Winter, 49; spring, 49 Conferences MW 11:30–12:30, Lab. TTh 1:30–3:30

203. Systematic Pharmacology.—The course covers locally acting drugs.

Recitation 10 hours, spring quarter (Tainter) S 11:30–12:30
Spring, 49

REQUIRED COURSES FOR THIRD-YEAR STUDENTS

204. Systematic Pharmacology.—In this course the systemic actions, including the experimental basis, toxicity and clinical actions, uses, and doses of the more important drugs are considered. Instruction is given by lectures and conferences.

60 hours, autumn and winter quarters (Hanzlik) MWF 1:30–2:30
Autumn, 43; winter, 43

205. General Therapeutics.—This course attempts a systematic presentation of the indications for and uses of drugs and other agents in the treatment of disease, and consists of lectures, conferences, and prescription writing practice.

33 hours, spring quarter (Stockton) MWF 1:30–2:30
Spring, 43

ELECTIVE COURSES

206. Research in Pharmacology and Therapeutics.—Open throughout the year to students for thesis and to graduates with proper qualifications and special interest in these subjects. Work may be done independently or under supervision in the department. For students not less than four hours per week.

(Staff) By appointment

207. Clinical Therapeutic Conference.—One hour weekly throughout the year for third- and fourth-year students. The work consists of conferences on therapeutic methods and results at the bedside; given in the wards of San Francisco Hospital. Limited to six students.

(Lee) Wednesday

Winter, 19

208. Special Topics in Therapeutics.—Results of institutional treatment and research in chronic disease, given by lecture, demonstration, or conference. The number of subjects and hours will vary from year to year. During 1929–30, three sessions were devoted to the symptomatic treatment of epilepsy, treatment of neurosyphilis and chemotherapy of dementia praecox. For third- and fourth-year students.

Spring quarter (Proescher) By appointment

PHYSIOLOGY

Oliver Peebles Jenkins, Professor Emeritus

Ernest Gale Martin, Professor

James Percy Baumberger, James Rollin Slonaker, Frank Walter Weymouth, Associate Professors

John Field II, Victor Ernest Hall, George Daniel Shafer, Assistant Professors

[See Courses 103, 104, 105, and 207 outlined on pp. 196–200.]

PUBLIC HEALTH AND PREVENTIVE MEDICINE

Ernest Charles Dickson (Executive), Professor

George Dock (Special Lecturer in Tropical Diseases), Leon Benedict Reynolds (Professor of Hydraulic and Sanitary Engineering, Stanford University, Special Lecturer in Sanitation), Morton Raymond Gibbons (Industrial Medicine and Life Insurance), Herbert Gunn (Tropical Medicine), William Peacey Shepard (Industrial Hygiene), Harry Alphonso Wyckoff (Tropical Medicine), Lecturers

Harold Delos Chope, Assistant

C. Emelia Peterson, Research Assistant

Gail Sweney Reeves, Nina Alexander Chern, Assistant Bacteriologists

Mildred Alice Grennan, Technician

201. The Principles of Public Health and Preventive Medicine.—A lecture course of 40 hours which includes discussion of the various problems of public health and preventive medicine. The lectures are given by members of the teaching staff and by others who are actively interested in various aspects of public-health work.

2 hours (40 hours), fifth and sixth quarters (Dickson, Reynolds, Shepard) (Room 311) MTh 4–5

Winter, 48; spring, 48

202. Industrial Medicine and Life Insurance.—A lecture course of ten hours dealing with the relation of medicine and surgery to industrial accidents, the State Compensation Law, and the medical aspects of life insurance.
1 hour (10 hours), twelfth quarter (GIBBONS) (Room 311) F 8:30–9:30
Spring, 49

203. Parasitology.—A laboratory course in which the student has an opportunity to study the usual parasites which are encountered in medical practice.
2 hours (20 hours), seventh quarter (WYCKOFF) (Room 312b) F 2:30–4:30
Autumn, 43

204. Tropical Medicine.—A course of lectures and discussions dealing especially with those tropical diseases which occur in the United States and emphasizing the common methods of spread and of mass control.
2 hours (20 hours), seventh quarter (GUNN) (Room 311) MTh 4–5
Autumn, 92

205. Demonstrations and Conferences.—A series of demonstrations and discussions of practical procedures in the epidemiology, diagnosis, and specific therapy of communicable diseases.
2 hours (20 hours), eleventh quarter (DICKSON) (Room 311) TTh 8:30–9:30

206. Sanitary Survey.—Each student is required to make a sanitary survey of a municipality or industrial plant, an epidemiological investigation of an outbreak of communicable disease, or a report on some other problem of public-health control, and to present the report before the end of the eighth quarter. The problem to be investigated should be selected by the student but *must be approved* by the executive of the department.

ELECTIVE COURSES

207. Serology.—A laboratory course in which the student becomes familiar with the methods of preparing and standardizing antigens, amboceptors, etc., and with the technic of complement fixation tests (Wassermann test) and agglutination tests. Limited to six students.
2 hours (20 hours), fourth year, spring quarter (WYCKOFF)
(Room 312b) F 2:30–4:30

208. Diagnostic Laboratory Exercises.—A practical course in the Bacteriological diagnosis of Communicable Diseases. Limited to four students of the fourth-year in each quarter.
Hours to be arranged (CHOPE, PETERSON) (Room 401)
Autumn, 4; winter, 12; spring, 12

SURGERY

Adolph Barkan, Frank Ellsworth Blaisdell, Stanley Stillman, Professors Emeritus
Albert Brown McKee, Rufus Lee Rigdon, Clinical Professors Emeritus

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Emile Frederic Holman (Executive), Leonard W. Ely, Emmet Rixford, Professors
Hans Barkan, Leo Eloesser, Philip Kingsnorth Gilman, Edward Cecil Sewall, Clinical Professors
Frederick Leet Reichert, Associate Professor
John Adolph Bacher, James Root Dillon, Arthur Lawrence Fisher, Harrington Bidwell Graham, Harvard Young McNaught, Caroline P. Palmer, Edward Bancroft Towne, Associate Clinical Professors
Otto Barkan, John Robert Burrows, Edmund Butler, Harold Augustus Fletcher, Sylvan Lewis Haas, Merrill C. Mensor, Wilber Frank Swett, Assistant Clinical Professors
Nelson J. Howard, Instructor
Rea Ernest Ashley, LeRoy Brooks, Loren Roscoe Chandler, Sigurd von Christierson, Albert David Davis, George Newton Hosford, Henry A. R. Kreutzmann, †J. Minton Meherin, Edmund J. Morrissey, Gunther Nagel, Roy Frank Nelson, Robert Allison Ostroff, Dohrmann K. Pischel, Aubrey Gatliff Rawlins, Lorruli Anna Rethwilm, Lloyd Robinson Reynolds, Frank Rodin, †William Lister Rogers, Blake Colburn Wilbur, Chester Howard Woolsey, Clinical Instructors
Russell Fletcher, Samuel A. Goldman, Curtis Gorham, Gordon Friedrich Helsley, James Gordon Henderson, Robert Steele Irvine, Jenner Garnett Jones, Mary Elizabeth Mathes, David Matzke, Clarence H. Nelson, Millard R. Ottinger, Paul Pace, Clarence Chipley Porter, J. Judson Sale, Robert Scarborough, Raymond Robert Scott, Rulon Squires Tillotson, Arthur Alexander VanDruten, Assistants
Frank Robert Girard, George Washington Hartman, Henry Anthon Lewis Ryfkogel, Lecturers
Ferd Walter Callison, Hiram B. Duncan, Assistant Lecturers

DIVISIONS

Ophthalmology
Genito-Urinary Diseases
Orthopedic Surgery
Otology, Rhinology, and Laryngology

GENERAL PLAN OF INSTRUCTION

Instruction in Surgery begins in the fifth quarter of the second year with recitations and discussions on assigned reading in a standard textbook. This course is intended to acquaint the student with the principles of surgery. Elementary instruction in the physical diagnosis of surgical conditions is

†Absent on leave, 1929–30.

included in the course given by the Department of Medicine. Two lectures on anaesthesia are included in the course.

The laboratory course in the second year includes demonstrations of methods of sterilization of surgical supplies. It includes also operations in which surgical procedures are performed on living animals under complete ether anaesthesia, and under exactly the same conditions that prevail in the modern operating room, particular attention being paid to asepsis, hemostasis, and the healing of wounds. Demonstrations and practice in the use of bandages, plaster, and surgical appliances are provided. The laboratory course in fractures and dislocations includes a study of X-ray plates and the production of the more important fractures and dislocations on a cadaver with immediate examination by dissection.

In the third year the students serve in the surgical wards of the Lane and San Francisco Hospitals as clinical clerks for a period of eight weeks in each hospital. The student is an integral member of the surgical house staff, spending his time each morning from 8:30 to 11:30 on the wards and in the operating rooms. Ward rounds are held daily at 8:30 covering the fields of general surgery, orthopedics, urology, and gynecology. The patients entering the hospital on these services are assigned to the student in rotation, and the student is held responsible for a complete history, and a complete physical examination under the supervision of the interne, and for the routine laboratory work such as urinalysis, blood, sputum, and feces analysis. The student is responsible for the presentation of his cases at clinics, conferences, and ward rounds, and must be primed in collateral reading for a full discussion of the case at these meetings. The student assists at the operations on his patients and follows closely the post-operative care of the patient. He is held responsible for a description of the macroscopic and microscopic appearance of whatever pathological material is obtained. During this period the student gives anaesthesia under supervision to ten cases.

Before entering upon his work in the ward the student is expected to provide himself with a certain minimum equipment which will enable him to make complete examinations of all patients under his care, so that he may thoroughly acquaint himself with the normal tissues before encountering the abnormal. This equipment includes the following: stethoscope, percussion hammer, tape measure, skin pencil, haemacytometer, nasal speculum, laryngeal mirror, ophthalmoscope, otoscope, head-mirror, haemometer, sphygmomanometer, and a thermometer. This equipment represents the instruments that every practitioner should have when he begins the practice of medicine, and it is to his advantage to learn their use while a student.

Amphitheater clinics are held once weekly at the San Francisco Hospital, attended by one-half the third-year class, and once weekly at the Lane Hospital, attended by the other half of the third-year class and by all the fourth-year class. Patients are presented so as to illustrate, in the course of the year, most of the surgical diseases of the different regions of the body.

In the fourth year the student is assigned to work in the various clinics of the Out-Patient Department. Under the supervision of instructors, he examines and helps care for the patients in the surgical, orthopedic, urological, otolaryngological, and ophthalmological dispensaries. An attempt is made in some of the clinics to duplicate individual office practice.

During the fourth year certain elective courses are open to a limited number of students who are particularly interested in the field of surgery, and in the laboratory investigation of surgical problems.

During one-half the third year and during all the fourth year, the student attends once weekly the out-patient amphitheater clinic. At this clinic patients from the several out-patient clinics are presented who illustrate the common or minor ailments which are not diagnostic problems, which do not require hospital care, and which can be disposed of by dispensary treatment. In this way it is hoped to acquaint the student with a fair knowledge of how to care for the numerous minor ailments which he will encounter immediately upon his entrance into practice.

REQUIRED COURSES FOR SECOND-YEAR STUDENTS

201. Introduction to Surgery.—Recitations and discussions on assigned reading.
2 hours (40 hours), winter and spring quarters (HOLMAN, REICHERT, NAGEL, PALMER) (Room 506 and Surgical Clinic) TTh 11:30–12:30
Winter, 48; spring, 48

202. Fractures and Dislocations.
3 hours (30 hours), winter and spring quarters (ELY, HOWARD) Lane Hall and Orthopedic Clinic) One-half the class on alternate Wednesdays 1:30–4:30
Winter, 49; spring, 49

203. Laboratory Course. — Demonstrations and practice in bandaging, splinting, dressing of wounds, hypodermoclysis, venesection, etc.
3 hours (15 hours), winter and spring quarters (SCARBOROUGH)
(Surgical Amphitheater) One-fourth the class on alternate Wednesdays 1:30–4:30
Winter, 48; spring, 48

204. Operative Surgery.—Students serve in succession as anaesthetist, surgeon, first assistant, second assistant, nurse.
3 hours (15 hours), winter and spring quarters (REICHERT)
(Surgical Laboratory) One-fourth the class on alternate Wednesdays 1:30–4:30
Winter, 48; spring, 48

205. Orthopedic Surgery.—Lectures and demonstrations.
1 hour (10 hours), spring quarter (ELY) (Lane Hall) M 10:30–11:30
Spring, 48

REQUIRED COURSES FOR THIRD-YEAR STUDENTS

For purposes of morning instruction the third-year class will be divided into four sections, *A*, *B*, *C*, and *D*, each section spending eight weeks on each of the following services: (*a*) Lane Hospital Medicine, (*b*) Lane Hospital Surgery, (*c*) San Francisco Hospital Medicine, (*d*) San Francisco Hospital Surgery.

206. Ward Rounds and Ward Work: Lane Hospital.
104 hours (Gynecology, 40 hours) for 8 weeks (HOLMAN, ELY, REICHERT, DILLON, PALMER, HOWARD, and STAFF) Daily 8:30–11:30
First semester, 22; second semester, 21

207. Ward Rounds and Ward Work: San Francisco Hospital.
90 hours (Gynecology, 30 hours) for 8 weeks (RIXFORD, ELOESSER, TOWNE, BUTLER, DILLON, and STAFF) Daily 8:30–11:30
First semester, 21; second semester, 22

208. Operating Clinic: San Francisco Hospital.—One-half the class.
1½ hours (24 hours) (RIXFORD) Th 8:30–10:00
First semester, 21; second semester, 22

209. Clinic on Hospital Patients.—One-half the class.
1 hour (16 hours) (HOLMAN, ELY, REICHERT, DILLON)
(Lane Hospital, Surgical Amphitheater) F 11:30–12:30
First semester, 22; second semester, 21

210. General Surgical Pathology and Diagnosis.—Current material will be utilized as much as possible.
1 hour (31 hours), autumn, winter, and spring quarters (Howard) (Room 506) T 2:30–3:30
Autumn, 43; winter, 43; spring, 43

211. Clinic on Patients from All Dispensaries.—One-half the class.
1 hour weekly throughout the year (Chandler, Nagel, in Surgery) (Lane Hall) S 11:30–12:30
First semester, 22; second semester, 21

REQUIRED COURSES FOR FOURTH-YEAR STUDENTS

For purposes of dispensary instruction, the fourth-year class will be divided into eight sections of about six students each. These sections will serve daily in the following dispensary clinics: General Medicine, 8 weeks; General Surgery, 4 weeks; Gynecology and Obstetrics, 4 weeks; Pediatrics, 4 weeks; Neurology, 4 weeks; Orthopedics, 2 weeks; Dermatology, 4 weeks; Urology, 2 weeks; Ophthalmology, 4 weeks; Otology, 4 weeks.

209. Clinic on Hospital Patients.
1 hour weekly throughout the year (31 hours) (Holman, Ely, Reichert, Dillon) (Surgical Amphitheater) F 11:30–12:30
First semester, 49; second semester, 49

211. Clinic on Patients from All Dispensaries.
1 hour weekly throughout the year (Chandler, Nagel, in Surgery) (Lane Hall) S 11:30–12:30
First semester, 49; second semester, 49

212. Urology.—Lectures.
1 hour (10 hours), autumn quarter (Dillon) (Room 311) T 8:30–9:30
Autumn, 49

213. Surgical Dispensary.
2 hours (48 hours) for 4 weeks (Gilman, Reichert, Chandler, Nagel, and Staff) Daily 9:30–11:30
First semester, 24; second semester, 25

214. Orthopedic Dispensary.
2 hours (24 hours) for 2 weeks (Ely, Fisher, and Staff) Daily 9:30–11:30
First semester, 24; second semester, 25

215. Urological Dispensary.
2 hours (24 hours) for 4 weeks (Dillon, Kreutzmann, Henderson, and Staff) Daily 9:30–11:30
First semester, 24; second semester, 25

216. Ophthalmology.
Lecture 1 hour (31 hours), autumn, winter, and spring quarters (Barkan) (Lane Hall) T 1:30–2:30
Autumn, 49; winter, 49; spring, 49

Out-Patient Instruction.—2 hours except Monday and Saturday.
32 hours for 4 weeks (Swett, Rodin, and Staff) (Dispensary) TWThF 2:30–4:30
First semester, 24; second semester, 25

217. Otology, Rhinology, and Laryngology.
Lecture 1 hour (31 hours), autumn, winter, and spring quarters (Sewall) (Lane Hall) Th 1:30–2:30
Autumn, 49; winter, 49; spring, 49

Out-Patient Instruction.—2 hours except Monday and Saturday.
32 hours for 4 weeks (Bacher, McNaught, and Staff)
First semester, 24; second semester, 25 (Dispensary) TWThF 2:30–4:30

ELECTIVE COURSES

218. Surgical Anatomy.
1 hour (10 hours), autumn, winter, and spring quarters (Howard)
Autumn, 49; winter, 49; spring, 42 (Anatomical Amphitheater) Th 3:30–4:30

219. Surgical Ward Rounds.—Limited to 15 students.
5 hours (20 hours) for 4 or 8 weeks (Lane Hospital) Daily 8:30–9:30
First semester, 42; second semester, 38

220. Research Laboratory.—Limited to two students at a time.
(20 or 40 hours) for 4 or 8 weeks (Holman, Reichert) By arrangement
Autumn, 3; winter, 2

221. Emergency Surgery.—Limited to six students. The student is assigned to one of the emergency hospitals for duty during certain hours of the day. He assists the resident medical officer in caring for patients admitted for treatment. This includes instruction in minor as well as major emergency procedures, more particularly fractures.
2 hours (40 or 80 hours) for 4 or 8 weeks (Butler) Daily in afternoon
Autumn, 14; winter, 15; spring, 2

222. Anaesthesia.—Limited to two students at a time.
(20 or 40 hours) for 4 or 8 weeks (Palmer) By arrangement
Autumn, 6

223. Special Dispensary Work.—This work may be undertaken in any one of the surgical specialties including otolaryngology, ophthalmology, urology, and orthopedics.
Winter, 2; spring, 1 Hours to be arranged

224. Library Walks.—An association with the old masters as obtained by a review of original works in the Lane Historical Library.
1 hour (10 hours) (Reichert) T 3:30–4:30

PRE-NURSING CURRICULUM

The Pre-Nursing Curriculum is designed primarily for those who wish to prepare themselves for administrative, teaching, social service, or public-health work. The curriculum consists of three years' work at Stanford University, and two years' work at the Stanford School of Nursing, San Francisco, the degree of Bachelor of Arts and the Nursing Diploma being conferred at the close of five years. The completion of 135 units of University work and acquirement of 135 grade points* are necessary before the student may enter the School of Nursing. The requirements for admission are the same as for other courses in the University.

The degree of Bachelor of Arts in Pre-Nursing is given only for the five years' combined University and Nursing course. Students who wish to take the degree of Bachelor of Arts before transferring to the School of Nursing should register in one of the major departments of the University. By careful planning it is possible to fulfill both the requirements for the Bachelor's degree in the major department, and those of the Pre-Nursing curriculum.

Pre-Nursing students entering with advanced standing from other universities are required to take a minimum of 45 units of resident work at Stanford University. While this minimum of 45 units presupposes a residence of three University quarters, the completion of the collegiate part of the Pre-Nursing Course in this minimum of time is possible for only those students who have fulfilled the requirements of the first six quarters, including the Lower Division requirements.

* Under the revised system, beginning October, 1930, 270 grade points will be necessary.

CURRICULUM

First Year

Autumn Quarter		Winter Quarter		Spring Quarter	
Subject	Units	Subject	Units	Subject	Units
Citizenship	4	Citizenship	4	Citizenship	4
*Chemistry 10	4	Chemistry 11	4	Chemistry 12	4
Language	3	Language	3	Language	3
Electives	4	Electives	4	Electives	4

Second Year

Language or Literature	3	English 2	3	English 2	3
History	3	History	3	History	3
**Biology 1	5	**Biology 2	4	Anatomy 112 (Embry.)	5
Electives	4	Electives	5	Electives	4

Third Year

Physiology 101	5	Physiology 102	5	Bacteriology 100	5
Psychology 51	5	Electives	10	Anatomy (Special)	5
Electives	5			Electives	4

This schedule presupposes entrance credit of 2 units in a foreign language, 1 unit in Chemistry, and 1 unit in History.

* Students offering no entrance credit in Chemistry will take Courses 1, 2, and 3.

** Students having entrance credit in a biological science are advised to take Zoölogy 1 and Zoölogy 2 (Comparative Anatomy) autumn and winter quarters, respectively.

Some suggested electives are: Economics 2 (Elementary Sociology); Economics 101 (Labor Problems); Economics 112 (Social Processes); Economics 114 (Social Problems); Economics 116 (Immigration); Physical Education (Personal Hygiene); Political Science 2 (State and Local Government); Political Science 110 (Administrative Organization); Psychology 55 (Experimental Psychology); Psychology 160 (Abnormal Psychology); Public Speaking 4 (Principles of Vocal Expression); Public Speaking 5 (Reading Aloud).

Graduates of schools of nursing affiliated with an institution of collegiate rank may be granted, on recommendation of the Pre-Nursing Committee, a maximum advanced credit of 45 units, provided they have also fulfilled the requirements for admission to the University. (For details see pages 111–119.)

To qualify for the degree of Bachelor of Arts, graduates of schools of nursing admitted to advanced standing will be required to fulfill both the Lower Division requirements and those of the major department in which they ultimately register. (For details of requirements see *Registration Manual for Lower Division,* and the departmental announcements in this bulletin.)

Students interested in this course should confer with Professor C. S. Stoltenberg, Stanford University, or with Professor Maude Landis, Superintendent of Nurses, Stanford University Hospital, San Francisco.

MEMORIAL CHURCH

The Reverend David Charles Gardner, D.D., Chaplain
Warren D. Allen, Organist

Memorial Church stands in the center of the inner quadrangle group, facing the main entrance. It is of modified Moorish-Romanesque architecture, in the form of a cross with rounded ends. The extreme length is one hundred and ninety feet, the extreme width, one hundred and fifty feet. The exterior finish is like that of the other quadrangle buildings except for the mosaics of the façade, the central feature being a striking representation of the Sermon on the Mount. The interior walls are buff sandstone, with tooled face, relieved by elaborate carved designs and fifteenth-century mosaics of great beauty. The features of the apse are the marble altar, the stained glass windows representing the Nativity, the Crucifixion, and the Ascension, and the mosaics covering the wall surface. Behind the altar is a replica of Cosimo Rosselli's Last Supper, from the Sistine Chapel at Rome. To the right and left, running to the arch of the apse, are long panels, a *gloria dei angeli* surmounted by reproductions in mosaic of Michelangelo's Prophets. The cove ceiling is also done in mosaics representing angels with trumpets. The nineteen stained glass windows of nave, transept, and apse illustrate the Life of Christ. The windows of the clerestory contain single figures of Old and New Testament characters, and the mosaics depict mostly Old Testament scenes. The seating capacity of the church, including galleries, is about eighteen hundred.

Memorial Church is unsectarian and without formal organization, but linked to historic Christianity by its ministry and sacraments. The services are informal and varied, conserving the great principles of Christian worship.

SERVICES

Divine Worship and Sermon, Sunday, 11 A.M.
(Holy Communion as announced.)

ORGAN RECITALS

Sunday, 4:00 P.M.; Tuesday, 4:15 P.M.; Thursday, 4:15 P.M.

MUSIC

WARREN D. ALLEN, Organist, Lecturer in Music, and Director of the University Choir
ERNEST WHITNEY MARTIN, Professor of Classical Literature, and Director of the University Band

1. Choir.—The choir sings at the morning service each Sunday in Memorial Church, the music consisting of anthem, chant, and hymns. Continuous course until end of year.
1 unit per quarter (ALLEN) (Memorial Church) Rehearsal Th 7:35 P.M.
Autumn, 19; winter, 25; spring, 26; summer, 5

2. Oratorio.—A separate choir, formed for the performance of oratorio and other major choral works.
1 unit per quarter (ALLEN) (Memorial Church) Rehearsal Th 8:20 P.M.
Autumn, 17; winter, 31; spring, 30

3. Orchestra.—A course in orchestral and ensemble playing for students with sufficient experience. Registration only upon passing of an individual trial.
1 unit per quarter (ALLEN) [Not given in 1929–30]

4. Military Band.
1 unit, autumn quarter (MARTIN) (Bandhouse) TTh 4:15–5:15
Autumn, 82

5. Concert Band.
1 unit, winter and spring quarters (MARTIN) (Bandhouse)
Brasses and Battery, T 4:15–5:15
Reeds and Woodwinds, Th 4:15–5:15
Winter, 86; spring, 78 Full Ensemble, Th 7–8 P.M.

PHYSICAL EDUCATION AND HYGIENE FOR MEN

Thomas Andrew Storey, Professor of Hygiene and Physical Education for Men, Medical Adviser of Men, and General Director of Department
Alfred Richard Masters, General Managar (Board of Athletic Control)
Walter Henry Brown, Professor of Hygiene and Physical Education, Director of Division of Informational Hygiene and University Health Service
Clark Wilson Hetherington, Royce Reed Long, Professors of Physical Education and Hygiene
Harry Beal Torrey, Professor of Hygiene and Physical Education, Director of Men Students' Health Service
Ernest Paul Hunt (Basketball and Freshman Sports), Harry Wilfred Maloney (Minor Sports), Robert Lyman Templeton (Track and Field), Glenn Scobey Warner (Football), Harry Meiggs Wolter (Baseball), Directors
Ernst Brandsten (Water Sports), Advisory Director
Claude E. Thornhill (Football), Associate Director
Garry Eaton Bennett (Golf), James Bradshaw, Murray William Cuddeback, William Boyd Ellington (Track and Field), Charles Myron Sprague (Swimming), J. Charles Winterburn (Football), Assistant Directors
Dell Theodore Lundquist, Herbert Lee Niebel, Assistant Medical Advisers of Men
Earle Frederick Roth, Medical Officer for Athletes
Ralph Howe, Examining Physician
Granville Wood, Acting Assistant Professor of Hygiene and Physical Education
Harry Everett Alderson, Consulting Dermatologist
Robert A. Powers, Roentgenologist
Elwyn Baidon Bugge, Myron Reed Schall, Edward Anderson Smith, Instructors
Donald Albert Robesky, Assistant in Football
Frank Allison Ragan, Acting Instructor in Tennis

ORGANIZATION

The Department of Physical Education and Hygiene is composed of the following divisions: (*a*) Division of Informational Hygiene; (*b*) Division of Physical Education (including athletics); (*c*) A Student Health Service; and (*d*) A University Health Service. The activities within these divisions are carried on by directors and their staffs. The organization as a whole is under a general director who is the executive head of the department.

OBJECTIVES

This department is concerned with the development of courses of instruction and programs of activity that will assist the University in the achievement of its purposes by helping students:

1. Form and understand health-habits, health activities, and health beliefs that will benefit them physically, mentally, and socially.

2. Prepare themselves to meet their present and future responsibilities for the health of their families and communities.

3. Satisfy their interests in games, sports, athletics, and sportsmanship with the greatest practical benefit to their physical, emotional, and social health.

4. Equip themselves for service in the field of hygiene and physical education.

STUDENT HEALTH SERVICE

A health examination is required of all men students prior to the completion of matriculation. This first examination is in two parts. One is a rapid, thorough examination that is mainly physical, given before the student enrolls in his classes. The other is a leisurely conference with such additional procedures as may be necessary to complete the examination, during the first quarter of the student's attendance. Subsequently required health examinations are repeated annually. Men who are found in such condition that they will probably be unable to carry the normal student load without health injury to themselves, or who are a menace to the health of their fellow students, are denied matriculation or continued registration in the University.

All men planning to participate in athletics are required each season to pass satisfactorily a health examination before going into active training.

Important health advice is followed up in later required conferences in order to learn the use the student has made of the advice given. Those who fail to take reasonable care of incapacitating defects, or who expose others to health injury because of their lack of self care, are not permitted to remain in the University.

Hours are scheduled every day, Saturday included, in the offices of the Student Health Service for men who desire help in the solution of their problems of physical, emotional, or social health.

These examinations are used for the general health benefit of the student, and for the purpose of safeguarding and advising him relative to his limitations and possibilities in recreation, sport, and athletics. The aim of the health service is informational and instructional as well as protective.

INTRAMURAL RECREATIONS AND SPORTS

Various opportunities are maintained by the department for voluntary individual and group participation in organized and unorganized intramural activities. All the facilities of the department are available for such usage daily at periods not covered by class schedules. Seasonal contests are scheduled in: Cross Country, Handball, Track (autumn quarter); Basketball, Tennis, and Swimming (winter quarter); and Baseball, Track, Relay Carnival, and Horseshoes (spring quarter). (See *Announcement of School of Hygiene and Physical Education for Men* for additional details.)

(Maloney and Staff)

TEACHER'S RECOMMENDATION IN PHYSICAL EDUCATION AND HYGIENE (FOR MEN)

For the present the departmental recommendation will be limited to those men who satisfactorily complete the minor in Physical Education and Hygiene announced below. A major course is in preparation for establishment in case there is sufficient demand for such a major. Candidates for the

regular high school credential who plan to use the minor will find it advantageous to register in the School of Biological Sciences for the degree of Bachelor of Arts and for their teaching major.

TEACHING MINOR IN PHYSICAL EDUCATION AND HYGIENE

Lower Division Requirements	Hours	Quarter Units
1. Six quarters of Lower Division required courses (four with rating of "C" or better)	18	
Upper Division Requirements		
1. Sports Courses (at least three different)		3
2. Course 150 (General Hygiene)		3
3. Course 151 (General Hygiene)		3
4. Course 152 (Individual Hygiene)		2
5. Course 153 (Group Hygiene)		2
6. Course 154 (Societal Hygiene)		2
7. Course 155 (History and Principles of Physical Education)		3
8. Course 160 (Organization and Administration of Physical Education in Secondary Schools)		3
9. Six units selected from the following:		
Course 161 (Organization and Administration of Physical Education in Colleges and Universities)		2
Course 130 (Leaders' Course)		1
Course 170 (Sport Methods—Baseball)		2
Course 171 (Sport Methods—Basketball)		2
Course 172 (Sport Methods—Football)		2
Course 173 (Sport Methods—Track)		2
Course 166 (Leadership Organization)		2
Lower Division Courses Recommended		
1. Zoölogy 1 (General Zoölogy)		5
2. Zoölogy 2 (Comparative Anatomy)		5
3. Zoölogy 102 (Insects and Disease)		2
4. Chemistry 1, 2, and 3		12
or Chemistry 10, 11, and 12		12
5. Psychology 51 (General Psychology)		5
6. Economics 2 (Elementary Sociology)		5
7. Bacteriology 100 (General Bacteriology)		5
8. Physical Education and Hygiene		
30. (Leaders' Course)		1
70. (Elementary Baseball Methods)		2
71. (Elementary Basketball Methods)		2
72. (Elementary Football Methods)		2
73. (Elementary Track Methods)		2
Upper Division Courses Recommended		
1. Psychology 135 (Physiological Psychology, Elementary)		3
2. Psychology 158 (Social Psychology)		3
3. Psychology 205 (Physiological Psychology of Action)		3
4. Physiology 101 (Elementary)		5
5. Physiology 102 (Elementary)		5
6. Physiology 103 (Principles of Physiology)		5
7. Zoölogy 108 (Mammalian Anatomy)		5
8. Biology 160 (The Biology of Protoplasm)		4
9. Anatomy 120 (Gross Human Anatomy)		5

The candidate should consult with the Director of the department very early, preferably in his first quarter in the Lower Division, in order that his program may be planned with reference to his individual needs and followed through the four years required by the State Department of Education for special certification or the five years requisite for the high-school or junior college certificate (see *Announcement of School of Education* for explana-

tion of these certificates). The minor in Physical Education and Hygiene has been set up to meet the needs of other candidates for teachers' recommendations than varsity team members and is in no way limited to that group.

ELEMENTARY AND BASIC COURSES

Open Primarily to Lower Division Students

1. Applied Physical Education and Hygiene.—A basic course in physical exercise, games, and sports set up to help students form health-habit programs that fit their needs, and to give them opportunities to gain skills in the recreations and sports that interest them. On the basis of health examinations and proficiency tests, students are classified as to their eligibility to more advanced sport and athletic courses that develop special powers and skills, impose greater mental and physical stresses, and involve more severe disciplines of character and personality and therefore call for a more careful regimen of hygiene. Required of all men students for six quarters or until completion of the Lower Division requirement. Three periods a week.
Autumn, *winter, *spring, and *summer quarters (Long and Staff)
Autumn, 183; winter, 156; spring, 142; summer, 56

2–4. Special Applied Physical Education and Hygiene.—Miscellaneous health-habit programs adapted to fit the needs of the individual student for whom the usual class activities are not indicated or suitable. Admission only on recommendation of General Director or Medical Adviser of Men. May be used to satisfy Lower Division requirement. Three periods a week.
Autumn, *winter, *spring, and *summer quarters

2. Corrective Gymnastics.—Admission on recommendation of the Medical Adviser of Men.
(Torrey, Maloney)
Autumn, 29; winter, 23; spring, 15; summer, 4

3. Modified Programs.—Open to sick or injured students transferred from other courses in the department by their instructors to the Medical Adviser of Men for counsel and help. Students who take intelligent care of their health problems under these special circumstances will be recorded as having satisfied the objectives of the Lower Division requirement in Physical Education and Hygiene.
(Storey, Torrey)
Autumn, 18; winter, 7; spring, 14; summer, 4

4. Adjusted Programs.—Adjustments of health-habit programs to meet the exceptional difficulties of the over-loaded student. Admission on approval of the General Director of the department.
(Storey, Brown)
Autumn, 47; winter, 55; spring, 36; summer, 3

10–24. Sports Courses, Elementary.—Habit-forming and discipline courses open to students who have demonstrated their satisfactory basic physical eligibility in Course 1. May be used to satisfy the Lower Division requirement. Three periods a week.

10. Baseball (Wolter)
Autumn, 24

12. Boxing (Maloney)
Autumn, 43; winter, 45; spring, 26

13. Fencing (Maloney)
Autumn, 20; winter, 23; spring, 7

19. Soccer (Maloney)
Autumn, 14

21. Tennis (Bugge)
Autumn, 74; winter, 68; spring, 59; summer, 25

24. Diving (Sprague)
Autumn, 20; winter, 15; spring, 17; summer, 6

Courses distributed in autumn, winter, spring, and summer quarters

30. Leaders' Course in General Physical Education Activities.—A course for qualified Lower Division students who are looking forward to the teaching of physical education. The course provides practice in gymnastics, game and athletic activities; the organization of material for class work; adaptation of activities for different groups; practice in the leadership of groups under supervision of instructor. Open by permission. Will fulfill Lower Division requirement. Three periods a week with some outside preparation.

Spring quarter (LONG and STAFF)
Spring, 1

40–46. Athletic Training Courses, Freshman.—Minor and major freshman athletic sport disciplines open by permission of the director of the sport involved to a limited number of qualified students who are eligible to participate in intercollegiate athletics under the rules and regulations adopted by the University. Five periods a week during the training season, then three periods a week until the end of the quarter. May be used to satisfy the Lower Division requirement.

40. Freshman Baseball.
Winter and *spring quarters (WOLTER and STAFF)
Winter, 16; spring, 9

41. Freshman Basketball.
Autumn and *winter quarters (HUNT and STAFF)
Autumn, 15; winter, 17

42. Freshman Football.
Autumn quarter (WARNER and STAFF)
Autumn, 58

43. Freshman Swimming.
Autumn, *winter, and *spring quarters (BRANDSTEN and STAFF)
Autumn, 24; winter, 22; spring, 21

44. Freshman Track and Field.
Autumn, *winter, and *spring quarters (TEMPLETON and STAFF)
Autumn, 29; winter, 49; spring, 29

45. Freshman Tennis.
Autumn, *winter, and *spring quarters (BUGGE)
Autumn, 19; winter, 17; spring, 20

46. Golf.
1 unit, winter and spring quarters (BENNETT)
Winter, 20; spring, 15

70–73. Special Methods Courses.—These courses are concerned with the methods and techniques of Applied Physical Education and Hygiene for the improvement of training and the development of skills and for the preparation of teachers and coaches. Each course is planned and given by the director of the activity involved with the assistance of his staff. In general each combination of elementary and advanced courses presents: (*a*) the history of its special activity or activities; (*b*) its growth in the colleges of the United States; (*c*) its standards of sportsmanship; regulations; régime of conditioning and training; (*d*) hazards of immaturity, physical defects, age and weight, and of overemphasis; (*e*) elementary methods (Courses 70, 71, 72, and 73) and advanced methods (Courses 170, 171, 172, and 173); and (*f*) techniques for the preparation of teachers for service in secondary schools, junior colleges, and universities. Classroom presentations; graphic illustrations; field, court, and floor demonstrations. Admission only by permission of instructor in charge of course.

70. Elementary Baseball Methods.—Open to men who have had satisfactory baseball experience before entering college or an equivalent experience and who have qualified under the requirements of Applied Physical Education and Hygiene 1. Sections limited to 30. Two classroom and three field demonstration periods a week.
2 units, autumn quarter (WOLTER and STAFF)
Autumn, 12

71. Elementary Basketball Methods.—Open to men who have had satisfactory basketball experience before entering college and who have qualified under the requirements of Applied Physical Education and Hygiene 1. Sections limited to 25 men each. Two classroom and three court demonstration periods a week.
2 units, autumn quarter (HUNT and STAFF)
Autumn, 6

72. Elementary Football Methods.—Open to men who have had acceptable experience on secondary school, junior college, or freshman teams and who have satisfied the pertinent requirement of Applied Physical Education and Hygiene 1. Sections limited to 25 men each. Two classroom and three field demonstration periods a week.
2 units, winter quarter (WARNER and STAFF)
Winter, 16

73. Elementary Track and Field Methods.—Open to men who have had satisfactory track and field experience before entering college and who have qualified under the requirements of Applied Physical Education and Hygiene 1. Sections limited to 25 men each. Two classroom and three track and field demonstration periods a week.
2 units, autumn quarter (TEMPLETON and STAFF)
Autumn, 12

ADVANCED COURSES IN PHYSICAL EDUCATION AND HYGIENE

101. Applied Physical Education and Hygiene.—Elective course for general physical exercise, games, and sports. Habit-forming and skill-developing course open to men students who have satisfied the Lower Division requirement in physical education and hygiene. Three periods a week.
1 unit, autumn, *winter, *spring, and *summer quarters (LONG and STAFF)
Autumn, 24; winter, 37; spring, 36; summer, 7

102–104. Special Applications of Physical Education and Hygiene.—Miscellaneous programs adapted to fit the needs of individual students for whom the usual class activities are not indicated or suitable. Admission only on recommendation of General Director or Medical Adviser of Men.

102. Corrective Gymnastics.—Admission on recommendation of Medical Adviser of Men. Three periods or more a week.
1 unit, autumn, *winter, *spring, and *summer quarters (TORREY, MALONEY)
Autumn, 4; winter, 6; spring, 2; summer, 2

103. Modified Programs.—Open to sick or injured students transferred from other courses in the department by their instructors to the Medical Adviser of Men for counsel and help. Students who take intelligent care of their health problems under these special circumstances will be recorded as having satisfied the objectives of the course. Daily, hour by arrangement.
1 unit, autumn and *spring quarters (STOREY, TORREY)
Autumn, 1; spring, 1

104. Adjusted Programs.—Adjustments of health-habit programs to meet the exceptional difficulties of the overloaded student. Admission on approval of the general director; hour by arrangement.
1 unit, autumn and *winter quarters (STOREY, BROWN)
Autumn, 25; winter, 22

110–124. Sports Courses, Advanced.—Habit-forming and discipline courses open to students whose qualifications satisfy the instructor in charge. Three periods a week.

110. Baseball (Wolter)
Summer, 3
111. Basketball (Hunt)
Summer, 8
112. Boxing (Maloney)
Autumn, 22; winter, 24; spring, 12
113. Fencing (Maloney)
Autumn, 10; winter, 14; spring, 14; summer, 3
114. Football (Warner)
Winter, 36; spring, 66; summer, 4
115. Golf (Bennett)
Winter, 34; spring, 55
116. Gymnastics (Long)
Autumn, 14; winter, 23; spring, 21
119. Soccer Football (Maloney)
Autumn, 45; spring, 28
120. Swimming (Sprague)
Autumn, 33; winter, 23; spring, 67; summer, 33
121. Tennis (Bugge)
Autumn, 58; winter, 41; spring, 60; summer, 20
122. Track and Field (Templeton)
Summer, 11
123. Wrestling (Long)
Winter, 16; spring, 7
124. Advanced Diving (Sprague)
Spring, 5

1 unit, courses distributed in autumn, winter, spring, and summer quarters

130. Leaders' Course in General Physical Education Activities.—A course similar to, but more advanced than, Course 30 described above. Three periods a week with some additional outside preparation.
1 unit, spring quarter (LONG and STAFF)
Spring, 1

140–146. Athletic Training Courses, Advanced.—Varsity athletic sport disciplines open by permission of the director of the sport involved to a limited number of qualified students who are eligible to participate in intercollegiate athletics under the rules and regulations adopted by the University. Five periods a week during the training season, then 3 periods a week until the end of the quarter.

140. Varsity Baseball.
1 unit, winter and *spring quarters (WOLTER and STAFF)
Winter, 39; spring, 24

141. Varsity Basketball.
1 unit, autumn and *winter quarters (HUNT and STAFF)
Autumn, 24; winter, 17

142. Varsity Football.
1 unit, autumn quarter (WARNER and STAFF)
Autumn, 104

143. Varsity Swimming.
1 unit, autumn, *winter, and *spring quarters (BRANDSTEN and STAFF)
Autumn, 52; winter, 52; spring, 38

144. Varsity Track and Field.
1 unit, autumn, *winter, and *spring quarters (TEMPLETON and STAFF)
Autumn, 67; winter, 79; spring, 64

145. Varsity Tennis.
1 unit, autumn, *winter, and *spring quarters (BUGGE)
Autumn, 53; winter, 38; spring, 30

146. Golf.
1 unit, winter and spring quarters (BENNETT)
Winter, 26; spring, 18

150–154. Informational Hygiene Courses.—Discussion courses, open to Lower and Upper Division students.

150. General Hygiene.—General Constructive Hygiene. This course is concerned with the influences that produce and maintain normal physiology. It involves the determining and contributory causes of somatic and mental health: heredity, nutrition, excretion, exercise, work, play, and rest, favorable physical and social environment, economic resource, and pertinent relations of higher education and political organization. Open to all students. Sections limited to 25 students each.

3 units, autumn, *winter, and *summer quarters (BROWN, LONG, WOOD)
Autumn, 79; winter, 118; summer, 54

151. General Hygiene (continued).—General Defensive Hygiene. This course is concerned with the influences that disturb normal physiology, the causes of disease, carriers of pathogens, contributory causes of poor health, the prevention of disease, and the defense of health. Prerequisite: Course 150. Sections limited to 25 students each.

3 units, winter, *spring, and *summer quarters (BROWN, LONG)
Winter, 35; spring, 65; summer, 9

152. Individual Hygiene.—The applications of General Hygiene by the mature individual for the maintenance and defense of his personal health. Prerequisites: Courses 150 and 151. Sections limited to 25 students each.

2 units, spring and *summer quarters (BROWN, LONG)
Spring, 34; summer, 2

153. Group Hygiene.—The applications of general hygiene by the family group, school group, occupational group, and other typical groups for the production, maintenance, and defense of the health of the members of the group. Involves the hygiene of parenthood, prenatal hygiene, the hygiene of infancy, childhood, and adolescence, school hygiene, occupational hygiene. Prerequisites: Courses 150 and 151. Sections limited to 25 students each.

2 units, autumn and *summer quarters (BROWN)
Autumn, 31; summer, 18

154. Societal Hygiene.—The applications of general hygiene through public opinion and by governing bodies for the production, maintenance, and defense of the public health; involves the idea of intergroup hygiene and includes rural community, municipal, county, state, and national hygiene. Prerequisites: Courses 150 and 151. Sections limited to 25 students each.

2 units, spring quarter (BROWN)
Spring, 25

155. History and Principles of Physical Education.—Should precede Courses 160 and 161.

3 units, autumn and *summer quarters (LONG)
Autumn, 15; summer, 7

160–165. General Methods Courses.—For the preparation of men for teaching positions in secondary schools, junior colleges, and universities.

160. Organization and Administration of Physical Education and Hygiene in Secondary Schools.—Should be preceded by Course 155.

3 units, winter quarter (LONG)
Winter, 6

161. Organization and Administration of Physical Education and Hygiene in Colleges and Universities.—Should be preceded by Course 155.

2 units, spring quarter (LONG)
Spring, 9

166. Leadership Organization of Physical Education Activities.—A course dealing with principles in the correlation of all the special methods

courses in physical education activities as applied to the capacities and needs of different age groups including sex and individual differences.
2 units, winter quarter (HETHERINGTON, LONG)
Winter, 7

170–177. Special Methods Courses, Advanced.—Upper Division courses open on permission of instructor to men who have had satisfactory varsity or equivalent experience in the athletic sport involved. (For description of Special Methods Courses, see Lower Division Courses 70–73.)

170. Advanced Baseball Methods.—Instruction, tests, and ratings for recommendations for teaching positions. Prerequisite: Course 70. Fourth-year men preferred. Sections limited to 30. Two classroom and three field demonstration periods a week.
2 units, autumn, and *summer quarters (WOLTER and STAFF)
Autumn, 2; summer, 2

171. Advanced Basketball Methods.—Instruction, tests, and ratings for recommendations for teaching positions. Prerequisite: Course 71. Fourth-year men preferred. Sections limited to 25 men each. Two classroom and three court demonstration periods a week.
2 units, spring and *summer quarters (HUNT and STAFF)
Spring, 7; summer, 3

172. Advanced Football Methods.—Instruction, tests, and ratings for recommendations for teaching positions. Prerequisite: Course 72. Fourth-year men preferred. Sections limited to 25 men each. Two classroom and three field demonstration periods a week.
2 units, spring and *summer quarters (WARNER and STAFF)
Spring, 30; summer, 10

173. Advanced Track and Field Methods.—Instruction, tests, and ratings for recommendations for teaching positions. Prerequisite: Course 73. Sections limited to 25 men. Two classroom and three track and field demonstration periods a week.
2 units, winter and *summer quarters (TEMPLETON and STAFF)
Winter, 17; summer, 5

177. Technique of Teaching: Leadership Organization of Physical Education Activities.
2 units, summer quarter (HETHERINGTON)
Summer, 9

180. Special Assignments.—Individual investigations of special subjects, problems of advanced degrees excluded. Open only to specially equipped selected students.
2 to 5 units, autumn, spring, and summer quarters (SCHOOL FACULTY) By arrangement
Autumn, 1; spring, 1; summer, 1

250. Seminar.—Staff problems in professional education.
2 units, spring quarter (STOREY, HETHERINGTON, and STAFF)
Spring, 1

PHYSICAL EDUCATION FOR WOMEN

Clelia Duel Mosher, Professor of Personal Hygiene, Emeritus

Bertha Stuart Dyment, Medical Adviser of Women and Director of Physical Education for Women
Helen Masters Bunting, Associate Professor
Georgina Meyer Burk, Edith Baker Williams, Instructors
Wilma Eda Fenner, Josephine Rogers, Acting Instructors (Summer Quarter)
Cecelia True McIntire, Assistant in Instruction
Margaret Lois Carrithers, Assistant to Medical Adviser of Women
Mildred Vishoot, Secretary

The aim of Roble Gymnasium, as a laboratory of personal hygiene, is to improve the standard of health of the women; to increase their mental and physical efficiency; to foster a spirit of democracy and sportsmanship; and so to prepare for the highest type of citizenship.

REGULATIONS AND REQUIREMENTS

Physical Education is required of all Lower Division students, and satisfactory completion of each quarter in Physical Education is essential to promotion to the Upper Division. In general, the arrangement will be as follows: One hour per week of marching and self-testing activities, and two hours per week for one quarter each of dancing, swimming, and an out-door sport, or a combination of any of the two-hour courses. After one quarter has been successfully passed in each of these two-hour courses the student may choose any two-hour courses offered to complete her required number of quarters.

A physical examination is made of each student in order to give advice as to work to be undertaken and to aid the student in removing any remediable physical handicaps.

One unit of university credit per quarter is given for three hours per week of satisfactory work in the activities courses, whether elective or required.

Costume.—The gymnasium suit is especially designed for Stanford students and must be purchased at Roble Gymnasium. A limited number of suits may be rented at a nominal cost in special cases, upon consultation with the Director. Regulation gymnasium shoes are required for gymnastic and outdoor classes. Swimming suits are provided by the University. Each student provides her own caps and towel tickets. The complete outfit costs approximately fifteen dollars.

Tennis.—The student is required to furnish her own racquet and balls.

Removal of Property.—All suits, shoes, racquets, and other personal property not claimed within three days after the close of classes in this department each quarter will be collected and disposed of.

Fees.—A fee of $2 for the first day and $1 for each additional day is imposed for needless late registration in required classes. Special fees are charged as follows: Archery, $2; corrective gymnastics, $1; locker, 50 cents.

Deposit.—A deposit of $1 is required for hockey, 50 cents of which is refunded when property is returned.

PERSONAL HYGIENE

1. Personal Hygiene.—A study of some of the factors which make for normal development and maximum efficiency in everyday living.
3 units per quarter (DYMENT) MWF 8
Autumn, 15; winter, 28; spring, 30

PHYSICAL EDUCATION

1–2. Gymnastics.

1. Marching and Self-Testing Activities (one hour), combined with a two-hour course in dancing, swimming, or sports.
1 unit per quarter (WILLIAMS)
Autumn, 25; winter, 28; spring, 10

2. Remedial Gymnastics (two hours), combined with any other course in Physical Education. Required of freshmen and sophomores whose posture demands special correction or who have other remediable handicaps. Elective for juniors and seniors. Open only on consultation.
1 unit per quarter (DYMENT, BUNTING, WILLIAMS)
Autumn, 15; winter, 24; spring, 6; summer, 20

10–19. Dancing.

10. Elementary Natural Dancing (two hours).
Autumn, 33; winter, 32; spring, 25

11. Intermediate Natural Dancing (two hours).
Winter, 5; spring, 9

12. Advanced Natural Dancing (two hours).
Autumn, 12; winter, 11

13. Dancing Composition (two hours). Open only on consultation.
Autumn, 8; winter, 11

15. Folk Dancing (two hours).
Autumn, 15; winter, 26

One quarter of either Course 10, 11, 12, or 15 required in freshman year. One or more additional quarters may be taken in sophomore year in fulfillment of the Physical Education requirement. Elective for juniors and seniors.
Combined with any other Physical Education course.
1 unit per quarter (MCINTIRE)

20–29. Swimming and Diving.

20. Elementary Swimming (two hours).
Autumn, 8; spring, 15; summer, 26

21. Intermediate Swimming. Requirement, 75 feet, any stroke (two hours).
Autumn, 27; winter, 6; spring, 49; summer, 33

22. Advanced Swimming. Requirement, 75 feet, crawl or trudgeon stroke (two hours).
Autumn, 19; winter, 12; spring, 51; summer, 15

23. Competitive Swimming. Prerequisite: Course 22 or its equivalent.
Spring, 14

25. Elementary Springboard Diving. Requirement, straight dive from three-foot board (two hours).
Autumn, 8; winter, 5; spring, 12; summer, 5

26. Intermediate Springboard Diving. Requirement, running swan dive, back dive, forward jackknife dive from three-foot board.

27. Advanced Springboard Diving. Requirement, in addition to that of Course 26, backward jackknife dive, and forward and backward somersaults from three-foot board.

One quarter of either swimming or diving required in freshman year. One or more additional quarters may be taken in sophomore year in fulfillment of the Physical Education requirement. Elective for juniors and seniors.

Combined with any other Physical Education course.
1 unit per quarter (Williams, Fenner)
Courses 26 and 27 combined: Auutmn, 8; winter, 5; spring, 12

30–242. Sports.

30. Elementary Archery
Autumn, 11; winter, 12; spring, 12; summer, 7
31. Intermediate Archery
Autumn, 12; winter, 8; spring, 8
32. Advanced Archery
Autumn, 12; winter, 5; spring, 6
132. Competitive Archery
Spring, 6
33. Freshman Basketball
34. Sophomore Basketball
Winter, 18
133. Junior Basketball
Winter, 18
134. Senior Basketball
Winter, 11
234. Graduate Basketball
35. Freshman Hockey
Autumn, 41
36. Sophomore Hockey
Autumn, 28
135. Junior Hockey
Autumn, 24
136. Senior Hockey
Autumn, 11
236. Graduate Hockey
38. Elementary Tennis
Autumn, 34; winter, 23; spring, 18; summer 18
39. Intermediate Tennis
Autumn, 19; winter, 27; spring, 21
40. Advanced Tennis
Autumn, 18; winter, 14; spring, 30; summer, 9
140. Competitive Tennis
Spring, 15
41. Freshman Track
42. Sophomore Track
45. Golf (Bennett)
Winter, 39; spring, 24
46. Equitation (Blaine)
Winter, 89; spring, 31
141. Junior Track
142. Senior Track
242. Graduate Track
Fencing (Bugge)
Spring, 7

One quarter of one sport required in freshman year; one or more additional quarters may be taken in sophomore year in fulfillment of the Physical Education requirement. Elective for juniors and seniors.

Combined with any other Physical Education course.
1 unit per quarter (Bunting, Burk, Williams, Rogers)

110–299. Professional Courses.—Professional courses for training teachers of Physical Education. In preparation.

SCHOOL OF PHYSICAL SCIENCES

CARL LUCAS ALSBERG, ELIOT BLACKWELDER, HANS FREDERIK BLICHFELDT, JAMES WILLIAM MCBAIN, DAVID LOCKE WEBSTER (*Chairman*), *Executive Committee*

The School of Physical Sciences consists of the departments of Chemistry, Geology, Mathematics, and Physics. Its faculty includes all members of these departments and certain professors of Biology, Engineering, Medicine, and Philosophy whose work is related to the physical sciences.

Programs of study are offered by the individual departments leading to degrees in their respective sciences. For the Bachelor's degree these programs are supplemented by a general program offered by the School leading to the degree of Bachelor of Arts in the Physical Sciences. Each candidate for the degree of Bachelor of Arts in the Physical Sciences will be required to take forty-five units of work in the physical sciences while he is registered in the Upper Division, and to have or acquire a reading knowledge of French or German. His program of study must be approved by a special adviser appointed by the Executive Committee of the School of Physical Sciences. It is the policy of the faculty of the School that such programs of study must consist largely of advanced work.

1–3. Introduction to the Physical Sciences. — Lectures on the more important aspects of astronomy, geology, physics, and chemistry. The course is not designed to prepare students for advanced work in these subjects, but to show them the nature of the field covered and to enable them to appreciate in some degree the influence these rapidly advancing sciences have on modern life. Although the course is continuous through the year, any quarter may be taken separately. High-school physics and chemistry are not prerequisites, but are desirable.

1. The principal features of astronomy and geology will be covered briefly in this section of the course, which is not open to students having credit in Elementary Geology.

3 units, autumn quarter (BLACKWELDER) MWF 8
Autumn, 101

2. Lectures and demonstrations in mechanics, heat, light, sound, electricity, inorganic chemistry, and modern physics, with particular emphasis on modern theories of atomic structure. This course not open to students having credit in Physics 100.

3 units, winter quarter (HARRISON) MWF 8
Winter, 66

3. Discussion of the philosophical aspects of the physical sciences and their relation to other branches of learning.

3 units, spring quarter (YOUNG) MWF 8
Spring, 67

CHEMISTRY

EDWARD CURTIS FRANKLIN, Professor Emeritus

ROBERT ECKLES SWAIN, JAMES WILLIAM MCBAIN, STEWART WOODFORD YOUNG, Professors
CARL LUCAS ALSBERG, Director, Food Research Institute
JOHN PEARCE MITCHELL, Registrar
NATHAN VAN PATTEN, Director of University Libraries
HERMAN A. SPOEHR, Acting Professor
FARRINGTON DANIELS (University of Wisconsin), Acting Professor (Summer Quarter)
WILLIAM HENRY SLOAN, Associate Professor
FRANCIS WILLIAM BERGSTROM, MAURICE LOYAL HUGGINS, PHILIP ALBERT LEIGHTON, JAMES MURRAY LUCK, CARL ROBERT NOLLER, GEORGE SUTTON PARKS, Assistant Professors
WILLIAM BELL LEE, Acting Assistant Professor
EVELYN MCBAIN, Research Associate
ROBERT DUBOIS, PIERRE J. VAN RYSSELBERGE, Instructors

ENTRANCE PREPARATION

Students who intend to major in chemistry are advised to offer entrance credit in the preparatory subjects of chemistry, physics, mathematics (including trigonometry and solid geometry) and German (two units). Those who do not have entrance credit or equivalent training in the foregoing subjects may experience some difficulty, especially in the engineering chemistry course, in meeting the departmental requirements for graduation in the usual time.

REQUIREMENTS FOR GRADUATION

Candidates for graduation in chemistry must offer the equivalent of two years (at least 22 units) of college work in German, or two years of French and one year of German. Whenever possible, this foreign language should be completed before the Upper Division work is begun.

Major students should complete the courses listed under one of the following curricula to meet the requirements for the degree of Bachelor of Arts in Chemistry. Whenever this is possible, the courses listed in each of these curricula for the first and second years should be completed before the work of the Upper Division is undertaken. Failure to meet fully these requirements may lead to difficulties in the last two years.

A. General Chemistry

[Recommended for those who are pursuing work in chemistry particularly as a basis for teaching and scientific research.]

First and Second Years.—Lower Division requirements, including Chemistry 1, 2, 3, 4, and 20; or 10, 11, and 12; Physics 1, 2, and 100 (at least 12

units); Mathematics 10, 11, 21, and 22 (23 also advised) or their equivalent; and German.

Third and Fourth Years.—Chemistry 111, 112, 121, 122, 123, 125, 130, 171, 173, and 190.

B. Biological Chemistry

[Particularly adapted to students who are looking forward to work along medical or biochemical lines.]

First and Second Years.—Lower Division requirements, including Chemistry 1, 2, 3, 4, and 20; or 10, 11, and 12; Physics 1, 2, and 100 (at least 12 units); Mathematics 10, 11, and 21, or their equivalent; and German.

Third and Fourth Years.—Chemistry 111, 112, 121, 122, 123, 125, 130, 141, 142, 143, 144, and 190; Physiology 103.

C. Engineering Chemistry

[Intended especially for students who desire to fit themselves for positions of responsibility in connection with work in industries involving chemical knowledge and skill. This curriculum comprises the undergraduate work preparatory to the advanced degree of Engineer in Engineering Chemistry, which is awarded at present upon the completion of one year of graduate work.]

First and Second Years.—Lower Division requirements, including Chemistry 1, 2, 3, 4, and 20; or 10, 11, and 12; Mathematics 10, 11, 21, 22, and 23; Civil Engineering 1, 2, and 99; and German.

Third and Fourth Years.—Chemistry 111, 112, 114, 121, 122, 123, 125, 130, 171, and 173; Civil Engineering 100, 106, and 110; Physics 13 and 14; Mechanical Engineering 10 and 11 or 12.

THE TEACHER'S RECOMMENDATION

The minimum requirements for recommendation to teach chemistry in the high school are given below. Additional work will be required of all students whose records are not entirely satisfactory. Students who have done their work in Chemistry elsewhere may be required to take one or more advanced courses here in order that the department faculty may have personal knowledge of their training and other qualifications. The extent and character of the additional work required will vary with individual cases. The following courses cover respectively the minimum minor and major requirements for students who have taken one year of chemistry in the high school and have passed the departmental placement examination for admission to Course 10 in General Chemistry. Students who do not qualify for admission to Course 10 must take Courses 1, 2, 3, 4, and 20 (19 units) instead of Courses 10, 11, and 12 (12 units). Course 130 (Physical Chemistry Laboratory) may be substituted for Course 122 (Organic Chemistry Laboratory).

a) To teach chemistry as a minor high-school subject: Courses 10, 11, and 12 (General Chemistry); 121, 123, and 125 (Organic Chemistry). Total 21 units.

b) To teach chemistry as a major high-school subject: Courses 10, 11, and 12 (General Chemistry); 111 and 112 (Quantitative Analysis); 121, 122, 123, 125 (Organic Chemistry). Elective, 5 units of Upper Division work. Total 36 units.

ADVANCED DEGREES

After October 1, 1931, the degree of Engineer in engineering chemistry will be conferred only on those candidates who have completed two years of graduate work in addition to the requirements for the degree of Bachelor of Arts as given under Curriculum C.

Prior to October 1, 1931, this degree will be awarded upon the completion, in addition to the requirements for the degree of Bachelor of Arts in engineering chemistry, of three quarters of graduate work. This work shall include a thesis based on laboratory work and, in addition to other selected graduate courses in chemistry, at least eight units of advanced work in engineering.

Applicants for the degree of Master of Arts in chemistry will be expected to complete, in addition to the requirements for the Bachelor's degree, the equivalent of forty-five units of work in the University, of which approximately two-thirds must be in the department. This work will include a thesis based on laboratory work. Courses 171 and 173 must also be taken if these were not included in the undergraduate work. Bacteriology 100, or 101, or 201 must also be taken by all students who are taking an advanced degree in the division of biochemistry.

Candidates for the degree of Doctor of Philosophy in chemistry will follow such courses as are approved by the department faculty, subject to general University regulations.

In addition to the general requirements laid down by the University Committee on Graduate Study, each candidate for the degree of Doctor of Philosophy in chemistry is required to take the preliminary qualifying examination in the Department of Chemistry during his first quarter of study for the Doctorate. This is a written examination of approximately eight hours duration which is given during the first half of each quarter. In general it covers the fields of inorganic, organic, and physical chemistry, general physics and elementary mathematics (including calculus). In the special case of students proceeding to their Doctorate in the biochemistry division, questions in biochemistry and biology will be substituted to some extent for those in physical chemistry, physics, and mathematics.

It is the policy of the department to encourage and support in every possible way the pursuit of research and of other work along advanced lines by students whose interest and training qualify them for undertaking it. A list of the published papers, and other information in regard to the research work carried on in the department during the past academic year, will be sent upon application.

FELLOWSHIPS AND SCHOLARSHIPS

In addition to the University fellowships and scholarships which are open to properly qualified students, there are at present six departmental fellowships in chemistry, three teaching fellowships, the Edward Curtis Franklin Fellowship, the Shell Development Company Fellowship, and the duPont Fellowship. These are open only to graduate students. The John Maxson Stillman Scholarship and the Henry Windt Junior Memorial Scholarship are open to graduates and undergraduates. Holders of teaching fellowships are expected to devote approximately twelve actual hours per week to assistance in teaching. There are also a number of teaching assistantships open to advanced students.

COURSES OF INSTRUCTION

General Chemistry.—A systematic treatment of chemical principles and their applications. Open to all students. Courses 1, 2, and 3 are designed for students who have not taken chemistry in the high school or whose previous training is not adequate to admit them to Course 10. Courses 10, 11, and 12 cover the same general field more thoroughly. Students registering for General Chemistry who have had previous training in chemistry will be given a placement examination for admission to Course 10 at the opening of the autumn quarter. The final adjustment of students between Courses 10 and 1 will be made immediately after the mid-quarter examination in the autumn quarter.

1. General Chemistry.—For students who have had no chemistry and for those who fail to pass the placement examination for admission to Course 10. Only 3 units of credit are given to students who have entrance credit in chemistry.
4 units, autumn quarter (MITCHELL, LEIGHTON)
Lec. MW 8; Lab. and recitation MT or WTh 1:05–4:05, or F 1:05–4:05 and S 9–12
Autumn, 132

2. General Chemistry.—Continuation of Chemistry 1.
4 units, winter quarter (MITCHELL, LEIGHTON, DUBOIS)
Lec. MW 8; Lab. and recitation MT or WTh 1:05–4:05, or F 1:05–4:05 and S 9–12
Winter, 132

3. General Chemistry.—Continuation of Chemistry 2.
4 units, spring quarter (MITCHELL, LEIGHTON, LEE)
Lec. MW 8; Lab. and recitation MT or WTh 1:05–4:05, or F 1:05–4:05 and S 9–12
Spring, 111

4. General Chemistry.—Continuation of Chemistry 3.
3 units, autumn quarter (DUBOIS) MWF 11
Autumn, 56

5. Principles of Qualitative Analysis.—Open to students who have completed Course 3 or its equivalent. This course will be accepted in lieu of Course 4 in meeting pre-medical requirements and of Course 20 in meeting departmental requirements.
5 units, summer quarter (VAN RYSSELBERGE) Lec. TTh 8; Lab. WThF 1:05–4:05
Summer, 8

10. General Chemistry.—For students who pass the placement examination.
4 units, autumn quarter (MCBAIN, HUGGINS, LEE, DUBOIS)
Lec. TTh 8; Lab. and recitation MT or WTh 1:05–4:05, or F 1:05–4:05 and S 9–12
Autumn, 118

11. General Chemistry.—Continuation of Chemistry 10.
4 units, winter quarter (MCBAIN, HUGGINS, LEE, DUBOIS)
Lec. TTh 8; Lab. and recitation MT or WTh 1:05–4:05
Winter, 94

12. General Chemistry.—Continuation of Chemistry 11.
4 units, spring quarter (MCBAIN, HUGGINS, DUBOIS)
Lec. TTh 8; Lab. and recitation MT or WTh 1:05–4:05
Spring, 88

20. Qualitative Analysis.—Open to students who have completed Course 3. This course is required of chemistry majors who have not completed Course 12, or its equivalent.
4 units, winter and spring quarters (VAN RYSSELBERGE) MWF 1:05–4:05
Winter, 10; spring, 3

111. Quantitative Analysis.—Lecture course. Must be taken in conjunction with Course 112.
1 unit, autumn, *winter, and *spring quarters (Sloan) TTh 1:05
Autumn, 56; winter, 39; spring, 8

112. Quantitative Analysis.—Introductory. Training in manipulation in gravimetric and volumetric methods. Open to students who have completed Course 12 or 4 or 20. Not open to first-year students. Given in conjunction with Course 111. Five units required of all chemistry majors. Class limited to 36.
4 or 5 units, autumn, *winter, and *spring quarters (Sloan) 4 or 5 afternoons
Autumn, 55; winter, 32; spring, 6

114. Quantitative Analysis.—A continuation of Course 112, principally gravimetric methods.
5 units, autumn, *winter, and *spring quarters (Sloan) 5 afternoons
Autumn, 2; winter, 9; spring, 3

121. Organic Chemistry. — Lectures and reviews on the chemistry of carbon compounds. Open to students who have completed Course 12 or 4 or 20.
3 units, autumn quarter (Bergstrom) MWF 11
3 units, summer quarter (first term) (Noller) MTWThFS 8
Autumn, 97; summer, 9

122. Organic Preparations.—Preparation and study of typical carbon compounds. Open in connection with Courses 121, 123, and 125 to students who have completed Course 12 or 4 or 20.
5 units, winter and *spring quarters (Noller, Bergstrom) 5 afternoons
Winter, 4; spring, 13

123. Organic Chemistry.—Continuation of Chemistry 121.
3 units, winter quarter (Bergstrom) MWF 11
3 units, summer quarter (last four weeks) (Noller) MTWThF 8
Winter, 86; summer, 8

125. Organic Chemistry.—Continuation of Chemistry 123.
3 units, spring quarter (Noller) MWF 11
Spring, 38

126. Analytical Methods of Organic Chemistry.—Qualitative organic analysis with an introduction to the study of mixtures. Organic combustion analysis, Dumas nitrogen method, Carius halogen determination. An introduction to technical organic analysis.
5 units, spring quarter (Noller) 5 afternoons
Spring, 4

128. Organic Chemistry.—A laboratory course designed especially to accompany Courses 121 and 123. Offered particularly for students in biology and medicine. Not for chemistry majors.
3 units, winter, *spring, and *summer quarters (Noller, Bergstrom)
Winter, 14; spring, 22; summer, 6 3 afternoons

129. The Theories of Organic Chemistry.—A discussion of some of the more recent theories in this field. Prerequisite: Chemistry 125.
2 units, autumn and *winter quarters (Bergstrom) TTh 11
Autumn, 18; winter, 6

130. Physical Chemical Measurements.—Exercises in the practice of physical-chemistry laboratory methods. Open to students who have completed Chemistry 112 and Physics 2 or 14.
3 units, winter and *spring quarters (Parks) MWF 1:05–4:05
Winter, 11; spring, 17

136. Sanitary Chemistry.—Designed for engineers and public health students. A study of the standard methods of water and sewage analysis and

the interpretation of results. Some of the more common food determinations are discussed. One lecture, two laboratory periods a week. Prerequisite: General Chemistry.
3 units, autumn quarter (BEARD) Lec. W 9; Lab. ThF 1:05–4:05
Autumn, 5

141. Biochemistry.—Lectures on the chemical composition of the tissues and secretions of the animal body. A knowledge of logarithms is advisable. Open to students who have completed Course 123 or 125.
2 units, autumn quarter (LUCK) TTh 8
Autumn, 87

142. Biochemistry.—An introductory laboratory course designed to accompany Course 141, consisting of a qualitative and quantitative study of the carbohydrates, lipins, and proteins, of the constituents of blood, urine, and the chief tissues of the animal body. The mode of action of enzymes, the colloidal state, digestion, and biological oxidations are also studied. Prerequisites: Courses 123, 111, and 112.
2 or 3 units, autumn quarter (LUCK) MTW or WThF 1:05–4:05
Autumn, 64

143. Biochemistry.—Continuation of Course 141, with particular reference to such topics as the nutrition, metabolism, and the waste products of the human organism.
2 units, winter quarter (LUCK) TTh 8
Winter, 68

144. Biochemistry.—Continuation of Course 142. The work of this course is devoted chiefly to the quantitative analysis of blood and urine.
2 or 3 units, winter quarter (LUCK) MTW or WThF 1:05–4:05
Winter, 62

171. Physical Chemistry.—A lecture and problem course dealing with the elements of physical chemistry. Open to students who have completed Chemistry 111, 112, 121, Physics 1, 2, and 100 (or their equivalent), and Mathematics 10, 11, 21, and 22 (or their equivalent).
4 units, autumn quarter (PARKS) MTWF 8
Autumn, 35

173. Physical Chemistry.—Continuation of Chemistry 171, with special emphasis upon the application of thermodynamics to chemistry.
4 units, winter quarter (PARKS) MTWF 8
Winter, 33

175. Methods of Crystal Structure Analysis.—Lectures. If desired, laboratory work in this field may be undertaken concurrently, the student enrolling for 2 or more units of Chemistry 190 or 200. Prerequisites: Chemistry 12 or 4 and Physics 100 or 101.
1 unit, autumn quarter (HUGGINS) W 10
Autumn, 6

180. Chemical Literature and Libraries.—The use of chemical literature in research with special consideration of the various abstracts, indexes, bibliographies and reference works as well as the cataloging and classification of material in general and special libraries. Some attention will be given to the historical development of the subject.
3 units, autumn quarter (VAN PATTEN) WThF 4
Autumn, 9

181. Modern Physical Chemistry.—Selected topics from atomic structure, chemical kinetics, and photochemistry.
3 units, summer quarter (DANIELS) TWTh 9
Summer, 13

183. Mathematical Chemistry.—Informal lectures with assigned reading and problems. Prerequisites: algebra, trigonometry, and Chemistry 12 or its equivalent.
1 unit, summer quarter (DANIELS) T 11
Summer, 10

190. Introduction to Methods of Investigation.—For general character and scope, see under Course 200. Primarily for advanced undergraduates.
(DEPARTMENT STAFF) By arrangement
Autumn, 23 (7 groups); winter, 21 (7 groups); spring, 11 (5 groups)

200. Research and Special Advanced Work.—Properly qualified students are encouraged to undertake work of research, or other advanced laboratory work along lines not covered by the courses already listed, under the direction of any member of the teaching staff with whom arrangement is made.

For all such research and special work students will register for Course 200 (or Course 190 if in undergraduate standing) giving the name of the member of the staff under whom the work is carried on and the number of units agreed upon.
(DEPARTMENT STAFF) By arrangement
Autumn, 40 (10 groups); winter, 39 (11 groups); spring, 46 (12 groups); summer, 30 (9 groups)

201. Chemistry of Protoplasm.—Selected topics in the chemical organization of protoplasm.
1 unit, winter quarter (ALSBERG) T 10
Winter, 27

203. The Laws and Concepts of Modern Chemistry.—A critical analysis of the origin and development of the fundamental principles of modern chemistry. Designed primarily for graduate students intending to devote themselves to pure scientific research and teaching, but open to any with sufficient training in science. Lectures, consultations, and reading.
3 units, autumn quarter (YOUNG) [Not given in 1929–30]

205. The Laws and Concepts of Modern Chemistry.—Continuation of Course 203.
3 units, winter quarter (YOUNG) MWF 9
Winter, 27

209. Photochemistry.—Lecture course. Theories and applications of the action of radiation in chemistry. Prerequisite: Physics 100 or 101.
2 units, winter quarter (LEIGHTON) TTh 9
Winter, 21

211. Department Seminar in Chemistry.—Discussion of recent advances in theoretical and general chemistry. Open to graduate students and to advanced undergraduates in chemistry with the approval of the faculty in chemistry.
1 unit, every quarter (DEPARTMENT STAFF) M 4:10–5:30
Autumn, 21; winter, 26; spring, 36; summer, 6

213. The Ammonia System of Compounds.—Experimental lectures on compounds related to ammonia as the familiar oxygen acids, bases, salts, etc., are related to water. Open to students who have completed Course 123.
3 units, spring quarter (BERGSTROM)
Spring, 39

215. Thermodynamics and Chemistry.—The application of thermodynamics to various fields in chemistry. Prerequisites: Chemistry 171 and 173.
3 units, spring quarter (PARKS) [In alternate years; not given in 1929–30]

217. The Structures of Atoms and Molecules.—Prerequisites: Chemistry 12 or 4 and Physics 100 or 101.
2 units, winter quarter (Huggins) TTh 10
[In alternate years; not given in 1929–30]

219. The Results of Crystal Structure Analysis.—Prerequisites: Chemistry 12 or 4 and Physics 100 or 101.
2 units, winter quarter (Huggins) TTh 10
[In alternate years; given in 1929–30]
Winter, 4

221. Sorption.—Lectures dealing with sorption, adsorption, and the chemistry of surfaces.
2 units, autumn quarter (McBain) TTh 11
Autumn, 33

223. Colloids.—Lectures dealing with the main principles of colloid science.
2 units, winter quarter (McBain) TTh 11
Winter, 41

224. Colloids.—A laboratory course to illustrate the chief characteristics of colloids.
2 units, winter quarter (McBain) [Not given in 1929–30]

225. Colloids and Surface Phenomena.—A reading and discussion course dealing with selected topics. Open to graduate students only.
1 unit, spring quarter (McBain) W 11
Spring, 7

231. Biochemistry.—A review of recent contributions to the chemistry and metabolism of carbohydrates, lipins, and proteins, a consideration of the newer aspects of nutrition, enzymes, internal secretions, the inorganic constituents of the organism, biological oxidations, and chemotherapy.
2 units, autumn quarter (Luck) TTh 9
Autumn, 13

233. Seminar in Atomic, Molecular, and Crystal Structures.—Open to properly qualified students after consultation with the professor in charge. The subjects taken up will differ from year to year.
2 units, spring quarter (Huggins) TTh 4
Spring, 1

235. Theories of Electrolytic Dissociation.—A review of the classical theory of Arrhenius and a detailed critical study of the modern theories of complete dissociation.
2 units, spring quarter (Van Rysselberge) TTh 11
Spring, 33

239. Introduction to Quantum Mechanics.—The basic ideas of the methods of Schrödinger, Heisenberg, and Dirac. Application of quantum theory to physical and chemical problems. (Students should have some aptitude for mathematics.)
2 units, spring quarter (Lee) TTh 11
Spring, 10

261. Chemophysical Biology.—[See also Biology 261 and Physics 261.]
1 unit, autumn, winter, and spring quarters (Clark, Luck, Taylor) Th 4
Autumn, 10; winter, 7; spring, 11

Laboratory Fees.—A charge of $15 per quarter ($5 of which is returnable less bills for breakage and loss of apparatus) is made to students in Courses 1, 2, 3, 10, 11, 12; for 3-unit laboratory courses, the fee is $20 per quarter (of which $10 is returnable); and for all other laboratory courses the fee is $30 per quarter (of which $15 is returnable less bills for breakage and loss of apparatus).

Courses 142 and 144, two units each, carry a deposit of $15 of which $7.50 is returnable; for three units, a deposit of $20 of which $10 is returnable. Students who have paid medical fees make a breakage deposit only in these two courses. This amounts to $7.50 for 2 units and $10 for 3 units of credit.

GEOLOGY

Bailey Willis, Professor Emeritus

Eliot Blackwelder, Austin Flint Rogers, James Perrin Smith, Cyrus Fisher Tolman, Professors
William Henry Twenhofel (University of Wisconsin), Acting Professor (Summer Quarter)
Solon Shedd, Curator of the Branner Library
Hubert Gregory Schenck, Assistant Professor
Paul Francis Kerr (Summer Quarter), Robin Willis (Spring Quarter), Acting Assistant Professors
Siemon William Muller, Instructor
William Morris Davis, Lecturer (Autumn Quarter)

The department offers instruction in the science of geology and training in preparation for the profession of geologist, including mining geologist, oil geologist, mineralogist, and paleontologist. At present the fields of work generally open to graduates of the department are those of university teaching and research, state and federal geological surveys, and technical geology in the service of mining, petroleum, and other industries.

Graduation.—For the degree of Bachelor of Arts in geology, sixty units in the department are ordinarily required. The substitution of courses in closely related departments, which are of definite value in geology, may be accepted by the department committee.

Courses which should be completed before admission to the Upper Division, in order that the department requirements for the degree of Bachelor of Arts may be satisfied within two years, are as follows:

Chemistry 1, 2, 3 (or 10, 11, 12), 20; Physics 1; Mathematics A, B, 10, 11 (or their equivalent); Geology 1 (or 1*a*); Civil Engineering 1, 2; German or French (two years). A first course in geology and mineralogy may well be included. (Physical Sciences 1 gives a brief survey of geology, but is not credited as part of the work of the Geology department.)

The courses offered in the Department of Geology are grouped as follows: (*a*) Geology, (*b*) Mineralogy and Petrography, (*c*) Paleontology and Stratigraphy, (*d*) Economic Geology. The following courses are generally required of all major students: Geology 1 or 1*a*, 101, 102, 108, 109, 121; Civil Engineering 1 and 2; Physics 1; Chemistry, through Qualitative Analysis; two years of German or French. In addition, it should be noted that Civil Engineering 20 is a prerequisite for Geology 108 and 109.

Students who plan to specialize in paleontology should take suitable courses in biology also. In general, advanced courses should be selected only after consultation with the instructor concerned.

Advanced Work.—Graduate work is offered in physical and dynamical geology, including its historical aspects; in stratigraphic geology and paleontology; in crystallography, mineralogy, and petrography; and in economic geology.

Under the direction of Mr. Blackwelder, advanced students may investigate the nature and origin of sedimentary deposits, physiographic and structural problems, or physical earth history. The coast and valleys of California and the adjacent states of the Great Basin Province offer exceptional opportunities for the study of these things in the field. Laboratories available for the use of advanced students are equipped with binocular and petrographic microscopes and other necessary apparatus for work in sedimentation. For study and comparison, and also for original research, graduate students have access to a large collection of modern sediments, rocks, and thin sections, derived from many parts of North America and other countries.

The department is well equipped for research in the stratigraphy and invertebrate paleontology of the Mesozoic and Cenozoic formations of the West Coast, as well as in comparative conchology and general invertebrate paleontology, under the direction of Mr. Smith. The Oldroyd collection of Recent shells, now the best in western United States, affords an especially good opportunity to conchologists.

In stratigraphy the whole of the West Coast Mesozoic and Tertiary is accessible and affords unusual advantages for research. The paleontological collections are especially good in Recent, Tertiary, Cretaceous, Jurassic, and Triassic materials. The Arnold collection of the West Coast Tertiary and Recent material, and the Law, Streator, Oldroyd, and Hemphill collections of shells are open to students, in addition to the general collections in paleontology. Supervised field study is offered to advanced students of Tertiary stratigraphy and paleontology.

The micropaleontologic laboratory, in charge of Mr. Schenck, is equipped with microscopes and collections of Recent and fossil micro-organisms, especially Foraminifera.

Mr. Rogers offers special studies in crystallography, systematic mineralogy, and petrography. Goniometers and polarizing microscopes with optical accessories are available in crystallography. In mineralogy, opportunities are especially favorable for work in chemical mineralogy. Much material for investigation is available, and a small private chemical laboratory may be used by advanced students.

In petrography large collections of metamorphic and igneous rocks of the state are available, and abundant opportunities are offered for both field and laboratory work. The petrographic laboratory is well equipped for advanced work.

Advanced and research work in economic geology is carried on under the direction of Mr. Tolman. It includes field investigations, laboratory work, and a study of the literature bearing on special problems of economic geology, especially those relating to water supply, petroleum, ores, and non-metallic substances.

The field work may consist either of a detailed geological study of a district, or of an investigation of a selected type of mineral deposit. The laboratory work may include chemical, microscopical, and office methods of research.

The laboratory courses in petrography and economic geology will furnish training for those who wish instruction in the methods of microscopic investigation of ores, especially the opaque minerals.

The gold, copper, tungsten, iron, and mercury deposits of California, as well as the important non-metallic deposits of the state, invite research.

The Branner Library, housed in the Geology Building, contains over 10,000 volumes, pamphlets, and maps relating to the geologic sciences. It receives current publications from many parts of the world.

GEOLOGY

[See also Physical Sciences 1, Introduction to Physical Sciences.]

1. General Geology.—The earth, its materials, structure, and internal conditions; the processes which are at work upon and within it; and an outline of its history. Class discussions based upon reading, laboratory, and field study. No prerequisites.

5 units, winter, *spring, and *summer quarters (Muller, Willis, Twenhofel) MTWThF 8
Lab. and field work by arrangement
Winter, 39; spring, 153; summer, 69

1a. Engineering Geology.—This is Geology 1 modified with special reference to the needs of engineers, but open to others. Prerequisites: Elementary Chemistry and Physics. Lectures, laboratory, and field trips.

5 units, autumn quarter (Muller) MTWThF 11
Autumn, 106

101. Physical Geology.—The structural and topographic features of the earth and the processes of their formation. Prerequisite: Geology 1 or 1*a*.

5 units, winter quarter (Blackwelder) MTWThF 9
Winter, 49

102. Historical Geology.—The evolution of the continents, oceans, mountain systems, and other features of the earth, and the development of its animal and plant inhabitants. Prerequisite: Geology 1 or 1*a*.

5 units, spring quarter (Smith) MWF 10
Spring, 32

108. Field Geology.—Field work with the Stanford Geological Survey. Summer camps are established in the Coast Ranges. During the first half of the summer quarter, the geology of the region reached from the camps is worked out and plotted upon topographic maps and sections. All methods of geologic mapping, where a topographic map is used as the base, are taken up. (For second half, see Geology 109; see also Geology 242.) **Prerequisites:** Geology 101, 102, 121; Civil Engineering 20.

8 units, summer quarter, first half (Tolman, Kerr, Muller)
Summer, 25

109. Geologic and Topographic Surveying with the Plane Table.—During the second half-quarter each student member of the Stanford Geological Survey prepares a detailed topographic and geologic map of an assigned area, controlled by accurate instrumental surveying. Prerequisite: Geology 108.

7 units, summer quarter, second half (Tolman, Kerr, Muller)
Summer, 23

111. Advanced Structural Geology.—Prerequisites: Geology 101 and 121.

3 units, spring quarter (Willis) MWF 11
[Given in 1930 and alternate years]
Spring, 21

112. Advanced Geology.—Special individual work in field, laboratory, or library.

Summer quarter (Twenhofel) By arrangement
Summer, 3

113. Advanced Physiography.—The origin of topographic features and the interpretation of physiographic history of selected regions. Based on the

study of topographic and geologic maps, models, and published reports. Prerequisites: Geology 101 and 143.
3 units, autumn quarter (DAVIS) By arrangement
Autumn, 17

114. Geologic Literature.—General reading outside of courses, with practice in bibliographic methods and abstracting. Limited to advanced students.
2 or 3 units, each quarter (SHEDD) By arrangement
Autumn, 6; winter, 13; spring, 13

119. Geologic Writing.—A course in technical writing designed for advanced students in geology.
2 units, spring quarter (WIDMANN) TTh 9
Spring, 12

207. Sedimentation.—The characteristics and origin of sedimentary deposits. Prerequisites: two years of Geology and Mineralogy, including Petrography.
5 units, autumn quarter (BLACKWELDER) MTWThF 9
Autumn, 6

210. Geologic Problems or Thesis.—Investigation of special problems in the laboratory.
Each quarter (BLACKWELDER) By arrangement
Autumn, 1; winter, 1; spring, 1

211. Journal Club.—All graduate students, members of the faculty, and such undergraduates as may be chosen by the staff will meet weekly to consider papers on current research, reviews of new publications, etc. Each student will present at least one paper each quarter.
1 unit, autumn, winter, and spring quarters M 4
Autumn, 15; winter, 17; spring, 12

212. Geologic Problems or Thesis.—Field or library investigations of special subjects.
Each quarter (BLACKWELDER) By arrangement
Autumn, 2; winter, 2; spring, 2

215. Research in Physical Geology.—For advanced graduates.
Autumn, winter, and spring quarters (BLACKWELDER) [Not given in 1929–30]

216. Research in Physical Geology.—Without laboratory work.
Each quarter (BLACKWELDER) [Not given in 1929–30]

MINERALOGY AND PETROGRAPHY

121. Common Minerals and Rocks.—The study of the more common and important minerals, with a brief treatment of the prominent rock types. An elementary course, with emphasis upon sight determination and simple physical and chemical tests. Prerequisite: Chemistry 3 or 12 or equivalent.
4 units, spring quarter (ROGERS) Lec. WF 11; Lab. ThF 1:05–4:05
Spring, 24

121a. Elementary Mineralogy.—A non-technical course designed to give a general knowledge of the common and widely distributed minerals. Some attention will be devoted to the precious and semi-precious stones. Prerequisite: Elementary Chemistry (either high school or college). Not open to students whose major subject is geology or mining and metallurgy.
3 units, autumn quarter (ROGERS) MWF 11
Autumn, 8

122. Mineralogy.—An elementary study of geometrical crystallography. The systematic study and determination of the more important non-silicate minerals. Open to students who have had Geology 121. Mechanical Engineering 10 (Descriptive Geometry) is recommended.
4 units, autumn quarter (ROGERS) Lec. TTh 11; Lab. MT 1:05–4:05
Autumn, 16

123. Mineralogy.—An elementary study of the optical properties of crystals, with emphasis upon the polarizing microscope as an instrument of research. Systematic study of the important silicate minerals and their determination by all available methods. Prerequisite: Geology 122. Physics 111 is recommended. Limited to twenty students.
4 units, winter quarter (ROGERS) Lec. TTh 11; Lab. TTh 1:05–4:05
Winter, 18

124. Petrography.—Study of hand specimens and thin sections of the principal rock types and mineral deposits. In Courses 122 and 123 the properties or characters of minerals are considered, while Course 124 is primarily concerned with the relations between associated minerals with special reference to their occurrence and origin. Geology 122 and 123 are prerequisites. Limited to twenty students.
5 units, spring quarter (ROGERS)
Lec. TTh 11; Lab. ThF and one period by arrangement, 1:05–4:05
Spring, 14

225. Advanced Mineralogy.—Advanced work in crystallography, mineralogy, or petrography may be undertaken by properly prepared students.
2 to 5 units, autumn and winter quarters (ROGERS) By arrangement
Autumn, 1; winter, 1

226. Advanced Mineralogy.—The same as Course 225, but with no laboratory work.
2 to 5 units, autumn, winter, and spring quarters (ROGERS) By arrangement
Autumn, 1; winter, 2; spring, 2

PALEONTOLOGY AND STRATIGRAPHY

141. Systematic Paleontology.—History and character of fossils. Three lectures and six hours of laboratory work weekly.
4 units, autumn quarter (SCHENCK) MF 10
Autumn, 22

144. Systematic Conchology.—Special studies in Tertiary and Recent Conchology of the West Coast. One lecture and two afternoons of laboratory work weekly.
2 units, autumn quarter (SMITH) TTh 1:05–4:05
Autumn, 7

145. Tertiary Conchology of California.
2 units, winter quarter (SMITH) TTh 1:05–4:05
Winter, 8

146. Paleobotany of California.
2 units, spring quarter (SMITH) [Not given in 1929–30]

147. General Geology of California.
2 units, autumn quarter (SMITH) TTh 10
Autumn, 36

148. Morphology and Phylogeny of Fossil Invertebrates.
2 units, winter quarter (SMITH) TTh 10
Winter, 9

149. Morphology and Phylogeny of the Ammonoidea.
2 units, spring quarter (SMITH) TTh 10
Spring, 5

150. Micropaleontology.—An introductory study of the Foraminifera, marine algae, ostracods, and other microscopic fossils, including fundamentals of laboratory technique. Prerequisites: Geology 141 and 142.
3 units, autumn, winter, and spring quarters (SCHENCK)
Lec. W 8; Lab. by arrangement
Autumn, 8; winter, 6; spring, 2

151. Micropaleontology.—A study of the more important groups of the Foraminifera. Continuation of Course 150.
3 units, winter and *spring quarters (SCHENCK) Units and hours by arrangement
Winter, 6; spring, 2

152. Micropaleontology.—The morphology, classification, and distribution of the larger Foraminifera, with special reference to the orbitoids. Continuation of Course 151.
3 units, spring quarter (SCHENCK) By arrangement
Spring, 5

240. Advanced Paleontology.—Research in paleontology, especially invertebrate morphology, and the distribution of faunas. Private work in field and laboratory.
2 to 5 units, autumn, winter, and spring quarters (SMITH) By arrangement
Autumn, 1; winter, 4; spring, 6

242. Field Studies in Tertiary Stratigraphy and Paleontology.—Selected problems are undertaken by advanced students who have completed Geology 108 or equivalent. Geologic sections are examined and fossils collected for laboratory study. For graduates intending to specialize in Tertiary paleontology.
7 or 15 units, each quarter (SCHENCK) By arrangement
Autumn, 3; winter, 3; spring, 1; summer, 3

251. Advanced Micropaleontology.—Research in micropaleontology.
Autumn, winter, and spring quarters (SCHENCK) Units and hours by arrangement
Autumn, 3; winter, 4; spring, 8

ECONOMIC GEOLOGY

160. Ground Water Geology.—Motions of surface and subsurface water and their relation to geologic structure. Methods of investigating surface and ground water supply. Prerequisite: Geology 1 or 1*a*.
4 units, autumn quarter (TOLMAN) MTWTh 8
Autumn, 41

161. Nonmetals.—The occurrence, distribution, origin, and geologic methods of investigation of the nonmetallic substances, including oil and coal. Prerequisites: Geology 102 and 121.
4 units, winter quarter (TOLMAN) MTWTh 8
Winter, 22

163. Ores.—The ore-forming processes, modes of occurrence of the various types of ore bodies, and the structures of the ores. A review of the important ore deposits of the United States and of the world. Prerequisites: Geology 1, 101, and 121.
4 units, spring quarter (TOLMAN) MTWTh 8
Spring, 10

265. Seminar in Ground Water.—Detailed study of the water resources of the Stanford campus and vicinity, or the study of special problems in ground water hydrology. Admitted on consultation.
Winter and spring quarters (TOLMAN) By arrangement
Winter, 7; spring, 5

266. Seminar in the Origin and Accumulation of Oil.—A critical study of the literature with reference to the origin and accumulation of oil. Students admitted only after personal consultation with the instructor.
4 units, autumn quarter (TOLMAN) By arrangement
Autumn, 5

267. Seminar in Ore Deposits.—This includes: (1) methods of preparing polished surfaces; (2) microscopic and chemical methods of determination of minerals in polished surfaces; (3) a review of the literature of ore

deposits, especially certain important publications of the United States Geological Survey, and the checking of the results appearing in this literature by a study of suites of specimens from the mines. Prerequisites: Geology 101 and 124. (Three lecture and conference periods and three or more laboratory periods.)

6 or more units, winter quarter (TOLMAN) By arrangement
Winter, 3

268. Special Courses.—These include: (*a*) study of the literature of some special phase of economic geology, with a thesis; (*b*) field investigation of some mine or mineral district, or nonmetallic substance, or the general economic geology of an assigned area. Without laboratory work.

Autumn and winter quarters (TOLMAN) By arrangement
Autumn, 1; winter, 2

269. Special Courses.—These include microscopic studies of ores collected during field studies (or microscopic investigation of suites of specimens owned by the University).

Spring quarter (TOLMAN) By arrangement
Spring, 2

MATHEMATICS

RUFUS LOT GREEN, Professor Emeritus

HANS FREDERIK BLICHFELDT, WILLIAM ALBERT MANNING, Professors
SIDNEY DEAN TOWNLEY, Professor of Astronomy and Geodesy
HAROLD HOTELLING, Associate Professor
JAMES VICTOR USPENSKY, Acting Professor
HAROLD BOHR (University of Copenhagen), Acting Professor (Summer Quarter)
CHARLES HENRY HARRINGTON, CHESTER FRANCIS LUTHER, Instructors
CLEO GARLAND ADELSBACH, Acting Instructor
BARRY F. BERING, MAX ALFRED HEASLET, Acting Instructors (Summer Quarter)
MAX ALFRED HEASLET, EVELYN BERNICE LINDERHOLM, HENRY POWELL, GEORGE ALFRED REID, RALPH EMERSON WESTON, Assistants in Instruction.

The courses offered in Mathematics are arranged in three groups: (I) Courses primarily for Lower Division students; (II) Courses primarily for Upper Division and graduate students; (III) Courses in Astronomy and Geodesy.

I. *Courses Primarily for Lower Division Students.*—These consist of introductory courses in Analytic Geometry, and Differential and Integral Calculus.

Courses 10, 11, 21, 22, and 23, or their equivalent, Courses 41, 42, and 43, are required of all engineering students. Under Group III, Astronomy and Geodesy, are included courses of especial interest to engineering students, as well as others of a more general interest.

Students intending to graduate with Mathematics as their major subject are required to take Courses 10, 11, 21, 22, and 23, or Courses 41, 42, and 43. This requirement should be met while students are in the Lower Division,

preferably during the first year. Such students are recommended to begin or continue the study of French or German in the first year.

Courses 41, 42, and 43, or Courses 10, 11, 21, 22, and 23 should be taken by students in other departments who need or desire Mathematics above the level of secondary school work. This requirement is presupposed for the course in Statistical Theory.

For the courses in this group the aim is to make the instruction practical in the sense of furnishing thorough drill on fundamental principles and much practice in their application. Emphasis is laid upon accuracy and system in the solution of numerical problems. Students whose training in arithmetical work has been deficient, or who are otherwise inadequately prepared, or who lack aptitude for mathematical study, cannot pursue these courses successfully.

II. *Courses Primarily for Upper Division and Graduate Students.*—Candidates for graduation in Mathematics as their major subject, in addition to the requirements under Group I, must take Advanced Calculus and Higher Algebra, together with other courses selected from this group, amounting in all to thirty units of credit in Group II. For a portion of the requirement under this group, certain courses in other departments having a large mathematical content may be substituted.

Graduate students are admitted to any course for which they have suitable preparation. Admission to candidacy for an advanced degree is a function of the Committee on Graduate Study. The department will recommend a graduate to the committee only after a consideration of the preparation, ability, and promise of success of the prospective candidate. It is advisable, before coming to the University, to fill out the appropriate blanks furnished by the Registrar for this purpose, and to receive the approval of the Department of Mathematics upon such candidacy.

Library.—The library facilities are good. The University subscribes for all important mathematical journals and proceedings of learned societies in English, French, German, and Italian, and the library contains complete sets of these and of learned societies of other countries. The more important treatises on mathematical subjects and the collected papers of eminent mathematicians are also in the library.

Fellowships and Assistantships.—Besides University Fellowships open to all graduates, there are two teaching fellowships in Mathematics involving approximately four hours' teaching a week, and several assistantships. These positions are filled by graduate students on the basis of ability and training in Mathematics, and in addition upon experience and ability in teaching.

The Teacher's Recommendation.—For a teaching minor in Mathematics, Courses 41, 42, and 43, or Courses 10, 11, 21, 22, and 23, together with nine additional units elected from Group II are required; for a teaching major, additional courses totaling twelve units of credit elected from Group II in addition to the requirements for a teaching minor.

ELEMENTARY COURSES

These courses are provided for students who have not taken them in the preparatory school, or who find it necessary to review them. A fee of $7.50 a quarter is charged for each course, A, B, and C.

A. Algebra.—Fundamental laws, negative and fractional indices, quadratic equations, curve plotting, arithmetic and geometric progressions, the bino-

mial theorem, complex numbers, logarithms. Students who have two entrance units in algebra may not receive University credit for the course.
3 units, autumn and *winter quarters (Reid) MWF 9
Autumn, 20; winter, 10

B. Algebra.—Continuation of Course A.
3 units, autumn, *winter, *spring, and *summer quarters (Heaslet, Reid, Weston) MWF 9, 11
Autumn, 33; winter, 23; spring, 14; summer, 2

C. Trigonometry.—Elementary course with applications involving logarithmic calculation. Students who have entrance credit in trigonometry may not receive University credit for this course.
3 units, autumn, *winter, *spring, and *summer quarters (Heaslet, Powell) MWF 11; TTh 11, S 8
Autumn, 31; winter, 28; spring, 17; summer, 7

I. COURSES PRIMARILY FOR LOWER DIVISION STUDENTS

10. Analytical Geometry.—Courses 10 and 11 cover the following topics: The plotting of curves; loci; geometry of the straight line, circle, parabola, ellipse, and hyperbola; transformation of co-ordinates; polar co-ordinates; solid co-ordinate geometry of the plane and straight line, with a brief discussion of the quadric surface. A placement examination will be given during the first week of the quarter. For the convenience of students failing to present entrance credits in algebra, plane and solid geometry, and trigonometry, or found deficient in them in the placement examinations, Courses A, B, and C, listed above, are offered in the department, for each of which a fee of $7.50 a quarter is charged.
3 units, autumn, *winter, and *spring quarters (Adelsbach, Powell, Harrington) MWF 9, 11; TTh 9, S 8; TTh 11, S 9
Autumn, 79 (3 sections); winter, 59 (2 sections); spring, 29

11. Analytical Geometry.—Continuation of Course 10.
3 units, autumn, *winter, and *spring quarters (Luther, Adelsbach, Harrington) MWF 9, 11; TTh 9, S 8; TTh 11, S 9
Autumn, 23; winter, 68 (3 sections); spring, 45 (2 sections)

21. Differential and Integral Calculus.—Courses 21–23 cover: Functions; the derivative as the slope of a curve and as the rate of change of a function; formulas of differentiation; maxima and minima; infinitesimals and differentials; slope of the curves $y = \sin x$, $y = \log x$, and related curves; the area under a curve; integration; length of the arc of a curve; areas in polar co-ordinates; curvature; definite integrals; volume of a solid of revolution; centers of gravity, fluid pressure, volumes, moments of inertia; infinite series; partial differentiation. Prerequisite: Analytical Geometry.
3 units, autumn, *winter, and *spring quarters (Luther, Harrington, Adelsbach) MWF 9, 11; TTh 11, S 8
Autumn, 50 (2 sections); winter, 14; spring, 56 (2 sections)

22. Differential and Integral Calculus.—Continuation of Course 21.
3 units, autumn, *winter, and *spring quarters (Luther, Harrington) MWF 9, 11; TTh 9, 10, S 8; TTh 11, S 9
Autumn, 69 (2 sections); winter, 46 (2 sections); spring, 13

23. Differential and Integral Calculus.—Continuation of Course 22.
3 units, autumn, *winter, and *spring quarters (Luther, Harrington) MWF 9, 10, 11; TTh 9, S 8; TThS 10
Autumn, 26; winter, 64 (2 sections); spring, 41 (2 sections)

41. Analytical Geometry.—An elementary survey of co-ordinate geometry and calculus, with applications. Designed to give an understanding of the

fundamental principles of the subject, and an ability to put these principles to practical use. Presupposes elementary algebra and plane trigonometry.
5 units, autumn quarter (ADELSBACH) MTWThF 10
Autumn, 17

42. Differential Calculus.—Functions. The derivative as slope of curve and as the rate of change of a function. Formulas of differentiation. Maxima and minima. Infinitesimals and differentials. Slope of curve $y = \sin x$, $y = \log x$, and related curves. Prerequisite: Analytical Geometry.
5 units, winter and *summer quarters (ADELSBACH, HEASLET) MTWThF 9, 10
Winter, 26; summer, 8

43. Integral Calculus.—Integration. The area under a curve. Length of the arc of a curve. Areas in polar co-ordinates. Curvature. Definite integrals. Volume of a solid. Inertia. Infinite series. Partial differentiation. Prerequisites: Analytical Geometry and Differential Calculus.
5 units, spring and *summer quarters (ADELSBACH, BERING) MTWThF 8, 10
Spring, 22; summer, 5

II. COURSES PRIMARILY FOR UPPER DIVISION AND GRADUATE STUDENTS

112. Analytical Mechanics.—Principles of statics, dynamics, and kinematics.
3 units, winter and spring quarters (MANNING) MWF 10
Winter, 6; spring, 5

119. College Algebra.—The logical basis of the number system, and the theory and solution of equations. For a fuller course in college algebra the student is advised to take Mathematics 119 and 120 simultaneously.
2 units, autumn quarter (HOTELLING) [Not given in 1929–30]

120. Determinants, Matrices, and Probability.—An introduction to important branches of algebra.
3 units, autumn quarter (HOTELLING) [Not given in 1929–30]

121. Probability and Statistics.—A short course touching the theory of probability, the normal law of error and correlation. Prerequisite: Calculus.
3 units, summer quarter (HOTELLING) MWF 10
Summer, 15

123. Theory of Probability.
3 units, autumn quarter (USPENSKY) TTh 10, Th 1
Autumn, 12

125. The Mathematics of Statistical Inference.—Statistical methods are considered with special reference to the interpretation of results in terms of probability. Frequency distributions; subjective and objective probability; Keynes' criticisms; the Law of Great Numbers; the normal law of error; correlation, simple, multiple, and partial; tests of stability, homogeneity, and independence; the use of probable errors. Recent contributions to the theory of small samples are considered. This is an elementary course in the sense that no previous knowledge of statistics is required, but it is expected that after completing it students will be able to understand the works of the leaders of mathematical statistics. Prerequisites: Calculus and some acquaintance with determinants and probability.
3 units, winter and spring quarters (HOTELLING) MWF 10
Winter, 10; spring, 9

130. Advanced Calculus I.
3 units, autumn quarter (BLICHFELDT) MWF 11
Autumn, 35

131. Advanced Calculus II.—Ordinary differential equations.
3 units, winter quarter (BLICHFELDT) MWF 11
Winter, 30

132. Advanced Calculus III.—Partial differential equations of the first order. Green's theorem. Laplace's equation.
3 units, spring quarter (BLICHFELDT) MWF 11
Spring, 26

140. Reading Courses.—Reading courses in various branches of mathematics may, upon consultation, be arranged for students who have special problems or interests.
Any quarter By arrangement with Executive Head of Department
Winter, 1; spring, 3; summer, 3

150. Differential Equations.—Prerequisite: A working knowledge of integral calculus.
4 units, summer quarter (HOTELLING) MTWF 9
Summer, 5

152. Theory of Numbers.—Linear and quadratic congruences. Binomial congruences. Law of quadratic reciprocity. Quadratic forms in two variables. This course is open to all students who have had a short course in the differential calculus.
2 units, winter and spring quarters (USPENSKY) TTh 10
Winter, 16; spring, 9

153. Theory of Groups.—Selected topics in groups of finite order to meet the needs of students.
3 units, autumn and winter quarters (MANNING) MWF 8, 9
Autumn, 5; winter, 3

155. Projective Geometry.
5 units, autumn quarter (LINDERHOLM) MTWThF 9
Autumn, 6

157. Non-Euclidean Geometry.
4 units, spring quarter (LINDERHOLM) MTThF 9
Spring, 11

158. Selected Topics from Infinite Series.
2 units, summer quarter (BOHR) TTh 10
Summer, 21

160. Theory of Equations.—Prerequisite: Differential and integral calculus. Special attention will be given to the Galois Theory of Equations. Dickson's *Modern Algebraic Theories* will be used as a text.
3 units, spring quarter (MANNING) [Not given in 1929–30]

205. Theory of Functions of a Complex Variable.—A brief course in transformations and integrals in the complex plane. The calculus is presupposed.
4 units, autumn and winter quarters (USPENSKY) MTThF 9
2 units, spring quarter (USPENSKY) MF 9
Autumn, 6; winter, 7; spring, 4

206. Theory of Functions of a Complex Variable.
4 units, summer quarter (BOHR) MTThF 11
Summer, 8

207. Calculus of Variations.—The course should be preceded or accompanied by at least a short course on functions of the complex variable.
2 units, spring quarter (USPENSKY) TTh 9
Spring, 8

208. Differential Geometry.—Curves and curved surfaces in space. Manifolds of higher dimensionality, including the curved space-time of relativity, will be considered in the latter part of the course. Differential equations and determinants are necessary prerequisites. A knowledge of solid analytic geometry is also desirable.
3 units, winter and spring quarters (HOTELLING) [Not given in 1929–30]

210. Analysis Situs.—The study of properties of figures, such for example as connectivity, which are invariant under deformations and other homeomorphisms. Prerequisite: Determinants.
3 units, winter and spring quarters (HOTELLING) MWF 11
Winter, 4; spring, 3

220. Linear Associative Algebras.
3 units, autumn and winter quarters (BLICHFELDT) MWF 10
Autumn, 13; winter, 11

225. Advanced Group Theory.
3 units, autumn, winter, and spring quarters (MANNING) MWF 8, 9
Autumn, 1; winter, 1; spring, 1

230. Seminar in Group Theory.
(MANNING) [Not given in 1929–30]

240. Linear Groups.
3 units, spring quarter (BLICHFELDT) MWF 10
Spring, 10

260. Advanced Reading and Research.—When in the opinion of the department a student is prepared to undertake advanced reading or research not connected with a formal course, such reading or research will be directed by a member of the department.
(BLICHFELDT, MANNING, HOTELLING, USPENSKY, BOHR) By arrangement
Autumn, 3; winter, 2; spring, 2; summer, 1

III. ASTRONOMY AND GEODESY

Courses 50, 51, 165, and 167 are designed especially to meet the needs of students who have time for only a general knowledge of astronomy. Course 161 is intended for students of engineering and geology who desire a working knowledge of practical astronomy. The other courses are intended primarily for students who wish to prepare themselves for astronomical or geodetic work.

50. Descriptive Astronomy.—This course consists of a general survey of the various branches of astronomy, including a study of the celestial sphere, the bodies of the solar system, comets, the fixed stars, and other heavenly bodies.
5 units, winter and *summer quarters (TOWNLEY, DAMSGARD) MTWThF 10, 11
Winter, 51; summer, 11

51. Observational Astronomy.—Study of constellations and various astronomical bodies: Elementary methods of determining latitude and time. One afternoon or evening per week. Supplementary to Course 50.
1 unit, winter quarter (TOWNLEY) By arrangement
Winter, 15

161. Practical Astronomy.—The theory and practice of the determination of latitude, azimuth, time, and longitude, with sextant and engineer's transit. Intended especially to meet the requirements of students of civil engineering, geology, and navigation. Courses 21, 22, and 23, and surveying are prerequisites.
3 or 4 units, spring quarter (TOWNLEY) MWF 10
Spring, 7

162. Advanced Practical Astronomy.—A continuation of Course 161. Precise methods of determining time, latitude, etc., by means of the universal instrument.
Any quarter (TOWNLEY) [Not given in 1929–30]

163. Adjustment of Observations.—Theory of the method of least squares, with applications. Credit in Courses 21, 22, and 23 or their equivalent is prerequisite.
3 units, autumn quarter (TOWNLEY) MWF 11
Autumn, 1

164. Geodesy.—Study of the form and dimensions of the earth and the practical methods of geodetic work. Courses 161 and 163 are prerequisites.
3 units, autumn quarter (TOWNLEY) [Not given in 1929–30]

165. Variable Stars.—Consideration of the different classes of variable stars, methods of observation and construction of light curves. Course 50 is a prerequisite.
3 units, spring quarter (TOWNLEY) [Not given in 1929–30]

166. Celestial Mechanics.—A study of the motions of the bodies of the solar system under Newton's universal law of gravitation. Courses 10, 11, 21, 22, 23, 50, 130, 131, and 132, and 112 or its equivalent are prerequisites.
3 units, autumn quarter (TOWNLEY) [Not given in 1929–30]

167. History of Astronomy.—A survey of the progress of astronomy from the time of the Greeks to the present. Course 50 is a prerequisite.
3 units, autumn quarter (TOWNLEY) MWF 10
Autumn, 3

PHYSICS

FERNANDO SANFORD, FREDERICK JOHN ROGERS, Professors Emeritus
ELMER REGINALD DREW, Associate Professor Emeritus

DAVID LOCKE WEBSTER, PERLEY ASON ROSS, Professors
EDWARD UHLER CONDON (University of Minnesota), Acting Professor (Summer Quarter)
JOSEPH GRANT BROWN, GEORGE RUSSELL HARRISON, Associate Professors
WILLIAM WEBSTER HANSEN, MILTON LAWRENCE WIEDMANN, Instructors
HARRY CLARK, Research Associate (Biophysics)
WILLIAM VERMILLION HOUSTON, Lecturer (Spring Quarter)
HORACE ALBERT BARKER, BOURNE GOODRIDGE EATON, HARRY ENGWICHT, BRUCE E. FOSTER, SAMUEL PAYNE REED, RAYMOND SANFORD SEWARD, KENNETH BERKELEY STODDARD, Assistants

The Department of Physics, in addition to the courses listed below, offers very good opportunities for research, with excellent equipment, especially in X-rays, light, and atmospheric electricity. In X-rays and in light, attention is being focused on measurements of intensities and their relations to theories of radiation.

For X-rays, the equipment includes a vacuum spectrograph and several first-class X-ray spectrometers, apparatus for making and exhausting special X-ray tubes, high-tension alternating-current outfits of various types, and a high-tension direct-current outfit producing exceptionally steady voltages up to 200,000 volts with a power capacity of about a kilowatt.

For researches in light the equipment includes a vacuum grating spectrograph, a six-inch 10-meter concave grating, a six-inch 21-foot concave grating, a four-inch plane grating with lenses for use in the visible, quartz apparatus for photographic photometry in the visible and ultraviolet regions,

apparatus for photoelectric photometry, an Anderson wire-exploding outfit, several thermopiles, and other radiometric apparatus for the study of spectral energy distributions in the region 10,000 to 2,000 angstroms.

For photographic intensity measurements in either light or X-rays, there are densitometers of several types.

The library facilities of the department are excellent. The University subscribes to all the important physical journals in English, French, and German, and the library contains complete sets of the more important of these and of the transactions and proceedings of a number of learned societies. The more important treatises on physical subjects in English, French, and German, and the collected papers of a number of the most eminent physicists are also in the library.

Requirements for Graduation.—For graduation in the department the minimum requirement is 60 units of Physics and Chemistry, of which at least 45 units must be Physics. Civil Engineering 99, 100, and 117 and Electrical Engineering 104, 105, 124, and 125 may be counted as Physics courses for the purpose of fulfilling this requirement. Some other courses in related sciences may be counted in full or part value for this purpose on the approval of the Department of Physics. Physics majors are advised to begin this work in Physics with Courses 1, 2, 100 or 101, 111, and 13. Candidates for graduation must offer the equivalent of two years of college work in German, or two years of French and one of German. The election of German in the Lower Division is advised for those who have not had the equivalent of two years of college work in this subject.

Advanced Degrees.—In addition to the general requirements laid down by the Committee on Graduate Study, each candidate for an advanced degree in physics will be required to take a general examination before the Department of Physics at some time during the first quarter of his graduate study, the purpose of this examination being to enable the department to form a reliable judgment of his proposed program of study. In addition to this examination, each candidate for the degree of Master of Arts will be required to pass a second examination before the Department of Physics in the quarter in which he takes the degree; likewise each candidate for the degree of Doctor of Philosophy will be required to pass an examination before the Department of Physics within three months previous to his oral examination by the committee appointed by the Committee on Graduate Study. Each of the departmental examinations will be partly written and partly oral. A good reading knowledge of German is required for the degree of Master of Arts, and of both French and German for the degree of Doctor of Philosophy.

The Teacher's Recommendation.—For a minor, the minimum requirement is 28 units of Physics, which should include Courses 1, 2 or 14, 100 or 101, 111, 13, and 200. For a major, the minimum requirement is 45 units of Physics, including these courses. Courses in related subjects may be substituted for some of the Physics courses on the approval of the Department of Physics. It is highly desirable for candidates for the Teacher's Recommendation in Physics to work as Teaching Assistants in the elementary laboratories. The practice teaching requirement of the Department of Education may be met in this way.

Fellowships and Assistantships.—Besides the University Fellowships open to all graduates, there are several assistantships in the department paying $500 per year, and several assistantships at lower salaries.

Laboratory Fees.—Courses with one laboratory period, $3 per quarter; two, $5 per quarter; three, $6 per quarter; but no fees will be charged in Course 230 (Research).

LOWER DIVISION COURSES

These courses are divided into two main groups. One of these includes courses prescribed or recommended for students preparing for biology, chemistry, geology, medicine, and other lines of work not classed as engineering. The other group is designed for engineering students. These groups differ in their emphasis on various topics, and even more in their mathematical prerequisites.

For a detailed statement on prescribed courses, the student is referred to the announcement of his own department. In general, however, the Lower Division courses of interest to non-engineering students are Courses 1, 2, and 3, while those of interest to engineers are Courses 13 and 14. Prospective Physics majors may take courses of either group.

1. Mechanics and Heat.—The lecture hours in this course are used chiefly for problem work on the application of mechanical principles to practical cases, and most of the experimental illustrations of these principles are found in the laboratory. The problems treated are on structures and machines of various kinds, and on the effects of inertia in moving bodies, including sound sources and sound receivers. Heat is treated only briefly, but with special reference to the explanation of heat phenomena by the motions of molecules. The essential purpose of the course is not only to give information on these particular subjects, but also to introduce the student to the methods of exact reasoning needed in advanced scientific work of any kind. Three lectures, either with one laboratory period per week, counting 4 units altogether, or with two laboratory periods, counting 5 units altogether.

4 or 5 units, autumn quarter (Ross, Brown, Wiedmann)
Lec. TThS 8 or 9; Lab. MTWThF 1:05–4:05, TTh 8–12 (any three hours)
Autumn, 141

2. Electricity.—This course is concerned chiefly with problems on the common practical uses of direct currents, and experiments in the lecture room and laboratory illustrating their fundamental principles, including the essential principles of electrostatics, electrolysis, and electromagnetism. The last three weeks are given to brief surveys of alternating current phenomena and of the vacuum tube experiments that prove an electric current to be a stream of electrons.

4 or 5 units (as in Course 1), winter quarter (Webster, Ross, Wiedmann)
Lec. MWF 8 or 9; Lab. MTWThF 1:05–4:05, TTh 8–12 (any three hours)
Winter, 136

3. Lenses.—This course is planned for pre-medical students, as preparation for Physiology 105, but may be taken profitably by others who desire a brief survey of the optics of lenses and microscopes and cannot afford time for the more extensive work of Course 111. One laboratory period per week.

1 unit, winter quarter (Wiedmann)
Lab. MTWThF 1:05–4:05, TTh 8–12 (any three hours)
Winter, 83

13. Heat.—The course treats the subjects of expansion, temperature and thermometry, calorimetry, change of state, transfer of heat, the properties of gases, and the first and second laws of thermodynamics. Prerequisite:

Calculus. Students who have not taken high-school physics are advised to register for 5 units.

4 or 5 units, winter quarter (Brown, Hansen) Lec. MWF 11; Lab. (one or two periods) MTWThF 1:05–4:05

Winter, 108

14. Electricity.—Magnets, magnetic fields, magnetic flux, and magnetic circuits. Electric charges, electric fields, and electric potential. Energy transformations in electric circuits. Electromagnetism and electromagnetic induction. The C.G.S. and practical units of electrical and magnetic quantities. Continued in Course 105. Prerequisite: Course 13. Students who have not taken high-school physics are advised to register for 5 units.

4 or 5 units, spring quarter (Harrison, Hansen) Lec. MWF 11; Lab. (one or two periods) MTWThF 1:05–4:05)

Spring, 95

30. Elementary Meteorology.—A course on the weather and its elements. The treatment will involve only simple mathematics and physics. Suited to students of climatology, aëronautics, or engineering, and to general students who wish to learn something of the subject but are not prepared for Course 130.

3 units, winter quarter (Brown) Lec. MWF 8 [In alternate years; not given in 1929–30]

UPPER DIVISION COURSES

100. Modern Physics.—A course on the discoveries of the last few decades on the nature of matter and energy. Specific topics covered are: the properties of electrons and atomic nuclei; electrons and nuclei as the constituents of atoms, with current theories of atomic structure; the wave theory of light and the electrical nature of light waves; the reactions between electrons, light waves, and atomic collisions, leading to the theory of quanta; the nature of space and time. Prerequisite: Course 2 or 14.

3 units, spring quarter (Webster, Ross, Harrison) Lec. TThS 8

Spring, 155

101. Modern Physics.—A summer course given by a visiting professor, similar in its general nature to Course 100 but differing in content and viewpoint.

3 units, summer quarter (Condon) Lec. MWF 11

Summer, 16

105. Electrical Measurements.—Precise measurements of current, potential, resistance, electric power, inductance, capacitance, and the magnetic properties of iron. Lectures on the foregoing topics and on electric oscillations and resonance, electrical discharges, cathode rays, and electron tubes. The course will include a review of fundamental principles of electricity and magnetism. Prerequisite: Course 2 or 14.

5 units, autumn quarter (Wiedmann) Lec. MW 11; Lab. (three periods) MTW 1:05–4:05

Autumn, 9

106. Ions and Electrons.—General principles of the theory of electrons. Electrical discharges. Ionization, recombination, and conductivity of gases. Corpuscular and X radiation. Prerequisite: Course 105.

5 units, winter quarter (———) Lec. MWF 10; Lab. WTh 1:05–4:05 [In alternate years; not given in 1929–30]

109. Advanced Electricity.—The objects of this course are: (1) a thorough review of the various electrical and magnetic quantities, their fundamental relations, and the units of all these quantities in the three systems of units; (2) a study of the elements of varying and alternating

currents; (3) a study of the elements of oscillating currents and electric waves; (4) applications of Poynting's theorem. Prerequisites: Course 105, Calculus, and preferably theoretical mechanics.

5 units, spring quarter (———) Lec. MTWThF 9
[In alternate years; not given in 1929–30]

110. Wave-Motion and Sound.—About one-third of the time is given to wave-motion. The work on sound deals with the production and propagation of sound, resonance, interference, musical instruments, hearing, the phonograph, the radiophone, and the acoustics of auditoriums. Two lectures and two or three laboratory periods per week. Prerequisite: A year of college physics.

4 or 5 units, spring quarter (BROWN) Lec. TTh 8; Lab. (two or three periods) by arrangement
[In alternate years; not given in 1929–30]

111. Light.—This course deals primarily with refraction, dispersion, interference, diffraction, and polarization of light. Two lectures and two or three laboratory periods per week. Prerequisites: Courses 1 and 2 or an equivalent. Students who have taken Course 110 will be able to cover about one-third more ground.

4 or 5 units, autumn quarter (BROWN) Lec. TTh 8; Lab. (two or three periods) by arrangement
Autumn, 9

120. Optical Instruments.—Elementary geometrical optics of the prism, the thick lens, and combinations of lenses, as used in optical instruments. Theory of the diffraction grating and interferometer, resolving power of instruments. Prerequisites: Course 111 and Calculus. Three lectures and one laboratory period per week.

4 units, winter quarter (———) Lec. MWF 9; Lab. by arrangement
[In alternate years; not given in 1929–30]

121. Physical Optics.—Lectures and assigned reading on line spectra in emission and absorption and their relation to atomic structure, magneto-optics, fluorescence, band spectra, the photoelectric effect, and the laws of temperature radiation, with comparison of the classical and quantum theories of radiation. Laboratory work with spectrometer, interferometer, polarimeter, grating and prism spectographs, and spectro-radiometer. Prerequisite: Course 120.

4 units, spring quarter (HARRISON) Lec. TTh 11; Lab. ThF 1:05–4:05
[In alternate years; not given in 1929–30]

123. X-Rays.—An introductory course, covering methods of producing and measuring X-rays, the main features of their spectra and the basic laws of their emission, scattering, reflection, absorption, and fluorescence. The laboratory work in this course and 124 is planned to include training in research methods. It consists primarily of experimental studies of a few phenomena chosen by the students, using such apparatus as may be at hand or made by them; and each problem includes the planning and assembling of the apparatus, as in a research problem. There also will be some opportunity for contact with actual research problems, through assisting in the X-ray research laboratory. Prerequisite: Course 100 or 101.

4 units, autumn quarter (Ross) Lec. MW 10; Lab. (two periods) by arrangement
Autumn, 11

124. X-Ray Spectra.—A continuation of Course 123, with special attention to X-ray spectra and such aspects of their relation to atomic structure as can be handled with a first course in Calculus. Prerequisites: Course 123 and Calculus.

4 units, winter quarter (Ross) Lec. MW 10; Lab. (two periods) by arrangement
Winter, 12

130. Meteorology.—A course on the physics of the air. Textbook, lectures, and problems. Prerequisite: a year of college physics.
5 units, winter quarter (Brown) Lec. MTWThF 8
[In alternate years; given in 1929–30]

Winter, 8

131. Atmospheric Electricity.—The potential gradient of the earth's electric field; ionization of the atmosphere; the thunder storm; the penetrating radiation; theories. Prerequisite: Course 2 or 14. Course 106 and ability to read French or German are desirable.
3 units, spring quarter (Brown) Lec. MWF 8
[In alternate years; given in 1929–30]

Spring, 6

140. History of Physics and Physical Sciences up to the opening of the nineteenth century. A course designed especially for students preparing for high-school or college teaching, or for research in physics. Each member of the class is assigned a particular field and he is expected to prepare and present lectures on the history of this field. Prerequisite: a year of college physics.
2 units, autumn quarter (Brown) By arrangement
[In alternate years; not given in 1929–30]

141. History of Physics during the nineteenth century and up to the present. A continuation of Course 140.
2 units, winter quarter (Ross) By arrangement
[In alternate years; not given in 1929–30]

COURSES PRIMARILY FOR GRADUATES

200. Teachers' Course in Physics.—The history of the development of present-day methods of teaching physics, and practice in outlining courses for use in the high school. Two lectures and one library period per week. Prerequisite: a year of college physics.
3 units, spring quarter (Brown) By arrangement
Spring, 8

201. Literature of Physics.—An intensive study of the literature of special topics in physics. This course is intended for two classes of students: (*a*) those who expect to engage in research and wish to become familiar with the present status of the subject of the proposed research; and (*b*) those who are preparing for the teaching of physics and wish to acquire facility in working up a subject for class use. The work consists chiefly in the preparation and presentation of reports upon the topics studied. Prerequisite: 25 units of college physics.
Any quarter (Any Member of the Department) By arrangement
Autumn, 2; winter, 7; spring, 9; summer, 2

204. Introduction to Mathematical Physics.—A preliminary survey of some of the mathematical principles, theorems, and equations most widely applicable in physics, with special emphasis on their physical interpretation and the methods of reasoning needed for independent work in mathematical physics. The course will be conducted on an independent study basis, the lecture hours being used only for conferences on questions arising in such study. Prerequisites: Courses 100 or 101, 105, either 110, 121 or 124, Mathematics 112, 150, and Civil Engineering 117.
5 units, autumn quarter (Webster) MWF 10
[In alternate years; given in 1929–30]

Autumn, 9

205. Electrical Theory.—Mathematical theory of static electric and magnetic fields, studied as in Course 204. Prerequisites: Course 204 and Electrical Engineering 104 and 105.
5 units, winter quarter (Hansen) MWF 10
[In alternate years; given in 1929–30]
Winter, 7

206. Wave Mechanics.—Mathematical theory of electromagnetic waves. Prerequisite: Course 205.
5 units, spring quarter (Houston) MWF 10
[In alternate years; given in 1929–30]
Spring, 3

207. Introduction to Wave Mechanics.—A course giving an introductory treatment of the ideas and methods of wave mechanics, as a preliminary to seminar work in recent theories of atomic structure. Prerequisite: Course 205.
5 units, summer quarter (Condon) Lec. MTWThF 9
Summer, 2

212. Thermodynamics and Kinetic Theory.—A course dealing with classical thermodynamics, statistical thermodynamics, and kinetic theory. Emphasis will be placed on the relations between the point of view of thermodynamics and that of kinetic theory. Prerequisites: Course 13 and Mathematics 132.
5 units, summer quarter (Hansen) [Not given in 1929–30]

214. Spectral Series and Atomic Structure.—Lectures and discussion on current theories of line spectra and atomic structure. One or two laboratory periods may be taken at the option of the student, giving practical experience in the spectroscopy laboratory on the measurement of spectral lines and line intensities. Prerequisites: Courses 121 or 124, 206, and 212.
3, 4, or 5 units, spring quarter (Harrison) Lec. MWF 10; Lab. by arrangement
[In alternate years; not given in 1929–30]

215. Seminar in Spectroscopy.—Discussion of the application of the quantum theory to the origin of spectral lines and the light it sheds on the structure of the atom.
Any quarter (Harrison) By arrangement
Autumn, 4; winter, 4

216. Seminar in X-Rays.—Discussion and reports on the progress of current researches in the X-ray laboratory and on articles in current literature of interest to research workers.
Autumn and winter quarters (Webster, Ross) By arrangement
Autumn, 4; winter, 3

217. Seminar in Recent Theories of Atomic Structure.
3 units, summer quarter (Condon) [Not given in 1929–30]

220. Journal Club.—Oral reports on the current literature of physics by department faculty and graduate students.
Every quarter W 4:15–6:00

230. Research.—Under this head may be included all work on experimental or theoretical problems in research, as distinguished from the independent study of non-research character listed as Course 201.
Units and quarter by arrangement (Any Member of the Department)
Autumn, 9; winter, 9 (3 groups); spring, 19 (4 groups); summer, 2

261. Chemophysical Biology.—[See also Biology 261 and Chemistry 261.]
1 unit, autumn, winter, and spring quarters (Clark, Luck, Taylor)
Autumn, 10; winter, 7; spring, 11

SCHOOL OF SOCIAL SCIENCES

†Edwin Angell Cottrell, Henry Waldgrave Stuart, Lewis Madison Terman, Payson Jackson Treat, Murray Shipley Wildman (*Chairman*), *Executive Committee*
Walter Greenwood Beach, *Adviser*

The School of Social Sciences has been formed (*a*) to facilitate the work of students who desire to study in several related fields without meeting the requirements for a degree in any one department; (*b*) to afford a convenient organization for the conduct of courses in subjects which do not lie wholly within the scope of any particular department; (*c*) to make possible a closer correlation of the work of the several departments included in the School.

The faculty includes all members of the departments of Economics, History, Philosophy, Political Science, Psychology, and the divisions of Journalism and Sociology, and the instructors in Citizenship, together with certain professors chosen from the departments of Education, Food Research, Law, Language, and Literature, who offer courses of instruction in subjects related to the Social Sciences.

UNDERGRADUATES

Major Students in the School.—A student may register as a major in the School or in any one of the constituent departments or divisions. If a student elects to become a major in one of the departments he is not obligated to meet the requirements for graduation in the School (as stated on this page), but he is held for the requirements of the department only. In order to become a major student in the School of Social Sciences one must have obtained 90 units of university credit with a grade-point average of 1.5, provided that for majors in any division where specific courses amounting to 30 units or more are required this standard of scholarship may be waived.

For the degree of Bachelor of Arts in this School 80 units are required in courses offered by the departments of Economics, History, Philosophy, Political Science, Psychology, and the divisions of Journalism and Sociology, together with the related courses offered in the other departments mentioned above. A part of this requirement will, under existing regulations, be met while the student is in the Lower Division.

The following courses of study (described in the announcements of the several departments in which they are offered) are specifically required for graduation in the School:

Economics 1 (Elements)	5 units
Economics 2 (Sociology)	5 units
History 10, 11, and 12 (European) or History 16 and 17 (English)	9 units
Philosophy 2 (Ethics)	4 units
Political Science 1 (Introduction)	5 units
Psychology 51 (General Psychology)	5 units
Total	33 units

[A course in statistical methods is strongly advised. Such a course is provided by Economics 6 (5 units), Education 185 (4 units), or Psychology

† Acting Chairman, winter, spring, and summer quarters.

60 (5 units). The modern-language requirements of the Lower Division must be satisfied as early as possible by all major students in the School who enter from other institutions.]

Undergraduates may enroll as major students in any one of the divisions of the School in the same manner as in a regular department of the University, subject to the condition that they shall satisfy the specific requirements of the School for graduation. The divisions of the School may arrange groups of courses constituting "Teaching Majors or Minors" in their respective subjects in the same manner as departments of the University, but no such majors or minors will be granted in "Social Sciences" or under other designation by the School as such.

GRADUATE STUDENTS

Graduate students who have completed the undergraduate requirements of the School of Social Sciences or of any one of the constituent departments or divisions, or an approximate equivalent of these, may be enrolled in the School as major students and may become candidates for the degree of Master of Arts or Doctor of Philosophy. Graduates of a constituent department or division or of another institution must, however, have completed the specific undergraduate requirements of the School before an application for candidacy for an advanced degree can be approved. Candidates for these degrees shall comply with all the general requirements of the University specified for the degree sought. The entire time of candidates for advanced degrees will as a rule be devoted to studies within the constituent and allied departments of the School, but in particular cases courses or lines of study may be elected in other departments of the University when incidental to and comprised within the general plan of work constituting the candidates' "major in Social Sciences."

The primary function of the School, except in the case of students in the "divisions" of the School, is to assist students in the investigation of problems which may not admit of satisfactory treatment from the point of view of any one of the several social sciences. Accordingly, only such graduate students as are looking forward to the preparation of a thesis or dissertation upon a problem of the kind in question will be enrolled as major students in the School or approved as candidates for advanced degrees. Enrollment will be made with the Chairman of the Executive Committee. Continuance of a graduate student in the School will depend upon the approval of a special standing committee consisting in each case of the Adviser of Graduate Students and a representative designated by each department of the School, constituent or allied, whose province, in the judgment of the Chairman of the Executive Committee, the proposed problem more directly touches. This special committee shall have a general oversight of the student's entire work. It shall pass upon the competence of the candidate's knowledge of French and German and upon the program of studies to be submitted to the Committee on Graduate Study in connection with the application for candidacy for the advanced degree. Application for candidacy must have the final approval of the Chairman of the Executive Committee of the School. The completed program of studies will constitute a "major in Social Sciences" for the degree of Doctor of Philosophy. In view of the composite character of this major, candidates will not be permitted to enroll for a minor in a particular department of the University or division of the School, and

the School will regularly recommend to the Committee on Graduate Study in behalf of its candidates for the Doctorate that the normal requirement of a specified minor subject, or subjects, be waived. Such candidates, before their oral examination for the degree, must pass written examinations of a comprehensive character in the subjects included in the specific undergraduate requirements.

In the case of students majoring in the "divisions" of the School the requirements for higher degrees shall be the same as for majors in independent departments.

CITIZENSHIP

Edgar Eugene Robinson (History), Director
Henry Stow Anderson (Economics), Assistant Director
Reginald Bell, Robert Deblois Calkins, Jr., Delbert Ransom French, James Kendall Hall, Edward Wentworth Harrington, William Stephen Hopkins, John Ralph Nichols, Clarence Gladden Osborn, Instructors

1–3. Problems of Citizenship.—A general introductory course required of all students in their first year. Designed to present the salient features in the bases and background of present-day society, to consider the place of education in modern life and the political equipment of the citizen, and to examine in detail the fundamental political, social, and economic problems of the American people.

Attention is given to the following: (I) Problems of Approach and Method, involving the presentation of the evolutionary conception of society and the preparation of mankind for a reasoning course of action; tests of the progress of man and the emergence of a scientific attitude and a scientific method, together with the development of social science; and, finally, a survey of the sources of information and an examination of the use and value of opinion. (II) Problems of Control and Support, involving an examination of political democracy, its origin, growth, and present-day manifestations, and the place and scope of constitutional government; the cost of government, the sources of its support, and the wide extension of governmental activities; the institution of private property and the modern wage system; and, finally, the control of industry. (III) Problems of Liberty and Co-operation, beginning with an examination of American liberty and the protection of individual rights, including, particularly, the pressure of the movement for liberalism and the argument for revolution; the movements of peoples, emphasizing the problems of race, and, particularly, social conflicts within the United States; the growth of modern imperialism, with emphasis upon the foreign policies of the United States; and, finally, the growth and development of international relations.

Lectures by various members of the faculty and sections in charge of instructors in Citizenship.

4 units, autumn, winter, spring, and summer quarters
T 10 (and three hours by arrangement)

Autumn, 481 (18 sections); winter, 484 (18 sections); spring, 478 (18 sections); summer, 63 (3 sections)

ECONOMICS

Murray Shipley Wildman, Walter Greenwood Beach, Eliot Jones, Albert Conser Whitaker, Professors

J. Hugh Jackson, Professor (Graduate School of Business)

Moritz Julius Bonn (Handels-Hochschule, Berlin), Clarence Marsh Case (University of Southern California), Herbert Joseph Davenport (Cornell University), Acting Professors (Summer Quarter)

Joseph Stancliffe Davis, Director of the Food Research Institute.

John Bennet Canning, Elmer Daniel Fagan, Charles Nathan Reynolds, Associate Professors

Henry Stow Anderson, Bernard Francis Haley, Carl Burton Robbins, Assistant Professors

Richard Tracy LaPiere, Margaret Frances Milliken, Wallace Wright, Instructors

C. Ward Macy (Coe College), Acting Instructor (Summer Quarter)

Holbrook Working, Lecturer

Robert Deblois Calkins, Clyde Garfield Chenoweth, Clausin Dennis Hadley, Dudley Henry Harkleroad, Otis Halbert Holmes, Edward Gene Nelson, Towne Joseph Nylander, Charles Craven Scott, Edward Stone Shaw, Harris Rolland Skelton, David Jefferson Teviotdale, Assistants in Instruction

Nature and Purpose.—Instruction in the department is not confined to the subject of Economics as commonly defined, but includes, in the Division of Accountancy, the special training in Economics appropriate for the professional practice of both private and public accountants, and, in the Division of Sociology, subject-matter usually offered in departments of sociology. In the conduct of all the courses, however, the economic factors are emphasized and their importance to our social institutions is developed. The primary purpose of the instruction is to discover the elements of a sound public policy rather than to train for a vocation.

Library.—The University Library is well provided with material in all subjects dealing with Economics, as well as in the field of business education. The Hopkins Railway Library affords invaluable material for investigation and study of transportation problems in great variety. There are special collections of works on the institutions and commerce of Brazil, Spanish America, and the Orient, as well as on the development of California and the Pacific Coast. California and its chief port, San Francisco, afford an abundance of material for the study of topics in frontier industrial development, foreign trade, labor, and immigration.

Advanced students in Economics will be given opportunity to study in co-operation with the Food Research Institute and will have access to the Hoover Collection. These sources will afford valuable material for the study of certain problems connected with the World War and the economic collapse of Europe.

Graduation.—To arrange a program of study leading to the degree of Bachelor of Arts in Economics a student should consult with his departmental and division advisers in order that his program of work may be adapted to his special needs or interests. In making such a program at least a fourth of the required 180 units must be selected from courses offered in this department.

In addition to courses given in this department, certain others offered in Political Science, History, Law, and Philosophy will be found helpful and should be included in the student's program.

Course 1 (Elementary Economics) and Courses 100*a* and 100*b* (Principles of Economics) are required of all candidates for graduation in Economics. (For additional requirements in the Division of Accountancy and the Division of Sociology see the statements following the list of courses.)

Advanced Degrees.—The work available to advanced students is not limited to that described in the list of courses below. The members of the department, with the assistance of certain members of allied departments, undertake to supervise a wide range of individual advanced study and research. The following groups of subjects are among those most fully developed: (1) economic theory and the history of economic thought; (2) railways and other public utilities; (3) money, banking, and prices; (4) corporations, trusts, and investments; (5) public finance; (6) accounting and auditing—theory and procedure; (7) certain branches of sociology; (8) certain fields of agricultural economics (with the assistance of the Food Research Institute); and (9) statistical theory and method (with the assistance of certain members of the departments of Mathematics, Psychology, and Education, of the Food Research Institute, and of the Graduate School of Business).

Those who contemplate becoming candidates for higher degrees should write in advance of registration to the executive head of the department for information about the department requirements.

Teacher's Certificate.—To obtain a teacher's certificate with the major subject in this department, a student will be required to secure credit for 45 units of work in Economics. For a certificate with a minor in this department, credit for 25 units is required. The department does not offer either a teaching major or a teaching minor for the junior high school certificate.

Teaching Assistantships.—The department annually nominates a number of graduate students for appointment as teaching assistants. The stipends of appointees vary from $750 to $900 per year (three quarters). The service expected consists of conducting one section of an elementary course during each quarter. It is our experience that able and well-prepared students can carry on this instruction and, at the same time, pursue satisfactorily graduate work on their own account. Applicants for these appointments for an ensuing year should address their requests to the executive head of the department not later than the last day of February. The applications should be accompanied by a complete, authenticated transcript of academic record (graduate and undergraduate) and should name several persons qualified to speak of the applicant's fitness for appointment.

COURSES OPEN TO LOWER DIVISION STUDENTS

1. Elementary Economics.—This is a brief study of problems involving the production, exchange, and use of wealth. An attempt is made to give the student an approach to the economic issues of the day with an intelligent appreciation of the factors which make for sound public policy. To become a major student in the department a student must either have completed this course or be registered for it in the quarter in which he enters the depart-

ment. Prerequisite: Completion of the course in citizenship or full exemption therefrom.

5 units, autumn, *winter, *spring, and *summer quarters (Chenoweth, Holmes, LaPiere, Nylander, Skelton, Teviotdale)

Autumn, 166 (4 sections); winter, 131 (4 sections); spring, 91 (3 sections); summer, 36

3a. Elements of Accounts.—The equation of modern accounts; theory of debit and credit; classification of accounts; procedure of recording transactions in modern accounting devices; preparation of balance sheets and loss and gain statements. No prerequisites. Sections limited to 40 students.

5 units, autumn, *winter, and *spring quarters (Calkins, Harkleroad, Nelson, Scott, Shaw)

Autumn, 79 (2 sections); winter, 116 (3 sections); spring, 104 (3 sections)

3b. Elements of Accounts.—Conclusion of Course *3a*. Prerequisite: Course *3a* or the equivalent. This course should be taken by those expecting to enter Course 120, and is a prerequisite to all other courses in accounting except Course 4. Sections limited to 40 students.

5 units, autumn, *winter, and *spring quarters (Hadley, Harkleroad, Nelson, Shaw)

Autumn, 41; winter, 44 (2 sections); spring, 101 (2 sections)

4. Elements of Accounts.—A briefer course within the scope of Courses *3a* and *3b* intended for those who expect to take only one course in the subject. No prerequisite. This course will not ordinarily serve, in place of *3a* and *3b*, as a prerequisite to other courses in accounting.

5 units, autumn, *winter, and *spring quarters (Wright)

Autumn, 28; winter, 36; spring, 35

5. Elements of Cost Accounting.—A general survey course in the theories and technique of cost or industrial accounting. Prerequisite: Economics *3b*.

5 units, winter quarter (Robbins)

Winter, 62

6a. Introduction to Statistical Methods.—A study of elementary statistical methods appropriate for dealing with problems in the social sciences and business. Emphasis is given to the critical examination of data, to the defining of statistical units, to the theory of classification, and to the properties and appropriate uses of the commoner averages and measures of dispersion. Some attention is also given to the simpler phases of index numbers and linear correlation. No prerequisites. Sections limited to 35 students.

5 units, autumn and *winter quarters (Milliken)

Autumn, 58; winter, 36

6b. Introduction to Statistical Methods.—A study of some of the problems of analysis of time series, including measurement of secular trends, seasonal fluctuations, and cyclical fluctuations. Prerequisite: Course *6a* or the equivalent. Sections limited to 35 students.

5 units, spring quarter (Milliken)

Spring, 33

24. Problems of Agriculture.—A study of the economic forces and institutions with which the farmer is concerned. Prerequisite: Course 1.

5 units, autumn quarter (Anderson)

Autumn, 61

46. Economic History of the United States.—A general historical survey of the economic development of the United States from the Colonial period to the present. The subject matter of the course includes the tariff, commerce and manufactures, currency and banking, the South and slavery, the financial management of the government, the labor movement and immigration, and the conservation of national resources.

5 units, autumn quarter (Fagan)

Autumn, 138

COURSES OPEN TO UPPER DIVISION AND GRADUATE STUDENTS ONLY

100a. Principles of Economics.—A review of the principles of economics. Required of major students in the Department of Economics and open only to them, to students in the School of Social Sciences, and to graduate students. Prerequisite: 135 units.

5 units, autumn, *winter, *spring, and *summer quarters (ANDERSON, JONES, MACY, MILLIKEN, ROBBINS)

Autumn, 117 (3 sections); winter, 87 (2 sections); spring, 23; summer, 37

100b. Principles of Economics.—A continuation of the work begun in 100*a*; required for graduation in the Department of Economics. Prerequisite: Course 100*a*.

5 units, autumn, *winter, and *spring quarters (ANDERSON, FAGAN, MILLIKEN, WRIGHT)

Autumn, 25; winter, 101 (3 sections); spring, 88 (2 sections)

101. Labor Problems.—A general course. The topics considered include the following: the rise of the wage-earning class, the industrial revolution, unemployment, woman and child labor, wages, collective bargaining, labor motives, and cultural aspects of labor life.

5 units, spring quarter (REYNOLDS)

Spring, 204

106. Foreign Exchange.—The settlement of debts arising in foreign trade, banking for the foreign trade, international money markets and bill markets, etc.

4 units, autumn and *spring quarters (WHITAKER)

Autumn, 23; spring, 141

107. Railway Transportation.—Historical account of railroad transportation; rates and rate-making; development of railroad systems; state and federal legislation; decisions of the commissions and of the courts; government ownership and operation.

5 units, autumn quarter (JONES)

Autumn, 139

108. Money and Banking.—The elements of monetary theory; the laws of coinage, legal tender, and credit; the history and principles of banking.

5 units, autumn quarter (WILDMAN)

Autumn, 151

109. Valuation.—The valuation of the operating assets, of the liabilities, and of the proprietary interests in private enterprises; the relating of anticipated outlay costs of operation to the problem of present valuation. Emphasis is given to the theories of depreciation, depletion, and obsolescence of assets and to the valuation of goodwill. Prerequisite: Course 3*b* or the equivalent.

5 units, winter quarter (CANNING)

Winter, 51

110. Public Finance.—A general course dealing with the history and theory of public expenditures, national, state, and local budgets, methods of securing efficiency in the disbursements of public moneys, public debts, and war finance.

5 units, autumn, *spring, and *summer quarters (FAGAN, MACY)

Autumn, 56; spring, 104; summer, 39

111. Taxation.—A general treatment of the principles and practice of taxation, with special reference to American methods and conditions.

5 units, winter quarter (FAGAN)

Winter, 40

[Business Law.—See Law 101, 102, and 103.]

119. Accountancy of Investment.—Methods of valuing income-bearing properties and securities on the basis of a rate of interest, and of finding the rate of interest yielded on investments. Depreciation and sinking funds. The

student's work will consist largely in the solution of assigned problems. Advanced mathematics not required.
4 units, autumn, *winter, and *spring quarters (WHITAKER)
Autumn, 59; winter, 95; spring, 80

120. Lectures on Corporation Finance.—Elementary survey of corporation law; the organization and management of corporations and combinations; the corporation's securities, the stock market and stock speculation; financial policy; promotion, underwriting, and reorganization. Prerequisite: Grade-point rating 1.25 or better in last published *Directory*.
3 units, winter quarter (WHITAKER)
Winter, 128

128. Cost Analysis.—The nature of enterprise costs; classification of costs; modes of allocating cost to items of product; the problems of joint cost and of unused capacity; the limitations of cost accounts; differential costs. Prerequisite: Course 5 or the equivalent.
5 units, spring quarter (CANNING)
Spring, 32

131. Principles of Economic Policy.—A systematic survey of economic principles applied to the different objects which economic policies can have in view and of the various methods by which they may be attained. The matter is divided into such main divisions as: territorial policy (including colonial policy); population policy (including migration policies); policy of ownership; policy aiming directly or indirectly at influencing prices (monetary and bank policy, commercial policy, wage policy, etc.). A knowledge of principles of economics is essential.
4 units, summer quarter (BONN) By arrangement
Summer, 12

148. Federal Tax Procedure.—A study of the problems involved in the determination of the taxable income of individuals under the most recent Internal Revenue Act. Prerequisite: Course 3*b*.
5 units, autumn quarter (ROBBINS)
Autumn, 46

149. Capital and Income.—A critical review of the economists', the lawyers', and the accountants' views of the nature of capital and income. Prerequisite: Course 100*a* or the equivalent.
5 units, spring quarter (CANNING)
Spring, 84

160. Business Cycles.—The business cycle, its characteristics and economic consequences; forecasting general business conditions; proposals for modifying or eliminating the business cycle; statistical methods employed in the study of the business cycle.
4 units, spring quarter (HALEY)
Spring, 68

COURSES PRIMARILY FOR GRADUATE STUDENTS

201. Graduate Seminar.—Open only to candidates for higher degrees who report upon dissertations in progress from week to week.
Spring quarter (WILDMAN) [Not given in 1929–30]

202. Seminar in Transportation and Public Utilities.—This seminar is designed for advanced students.
Spring quarter (JONES) By arrangement
Spring, 2

205. Seminar in Economic Research.—Open to qualified students.
Autumn quarter (DAVIS) [Not given in 1929–30]

206. Value and Distribution.—A systematic view of the economic field, in both the critical and the constructive emphasis.
4 units, summer quarter (DAVENPORT)
Summer, 15

208a and b Seminar in Public Finance and Taxation.—This course will afford opportunity for independent reading and research in the general field of public finance. Periodic conferences will be held for discussion and criticism of the results of each student's investigations. Wide freedom of choice of topics will be permitted, subject only to the limitation of available library and field material.
208a. autumn quarter
208b. winter and *spring quarters (FAGAN) By arrangement
Autumn, 5; winter, 9; spring, 5

210. Accounting Problems.—Methods appropriate for recording and reporting divers classes of transaction to which anyone is likely to be a party but which constitute the principal business of few persons. Such transactions as those between corporation and underwriter, principal and broker, bankrupt and referee and trustee in bankruptcy, trustee and beneficiary, insurer and insured (following a loss), etc., are discussed. Liberal use is made of problems set in recent examinations for Certified Public Accountants. Prerequisite: consent of the instructor.
5 units, autumn quarter (CANNING)
Autumn, 10

213a and b. History of Economic Thought.—A study of the development of economic theories from ancient times to the present. The first half of the course will cover the period previous to Adam Smith. Either half may be taken without the other. Seniors may be admitted with the consent of the instructor.
213a. 4 units, autumn quarter
213b. 4 units, winter quarter (HALEY)
Autumn, 12; winter, 9

214. Investments.—A study of the issues of national, state, and municipal governments, of railway, industrial, and irrigation companies from the investor's point of view, and the organization and methods of bond and brokerage houses.
3 units, winter and *spring quarters (ROBBINS)
Winter, 39; spring, 48

217. Railway Problems.—A study, from the viewpoint of public policy, of the problems that arise in connection with government regulation and government ownership. Prerequisite: Course 107, and consent of the instructor.
5 units, winter quarter (JONES)
Winter, 11

220. Financial Reports.—A discussion of the character of reports necessary to a proper control of the finances of private enterprises; corporate issues; dividend policy; borrower-depositor relations with banks; trade credit policy, etc. The statistical analysis of financial statements will be the mode of procedure. Prerequisite; consent of the instructor.
5 units, autumn quarter (CANNING)
Autumn, 11

221a and b. Seminar in Accounting.—Research in approved problems in the theory and practice of accountancy. Credit for 221*a* will not be given until 221*b* is concluded.
221a. autumn quarter
221b. winter quarter (CANNING) By arrangement
Autumn, 4; winter, 7

222a and b. Auditing and Accounting Procedure.—This course is offered for students who are interested in auditing and accounting procedure from the standpoint of the public accountant or the treasurer, comptroller, or auditor in charge of the accounts of a commercial or industrial concern. The course should also be of interest to the student interested in credit or commercial banking, or to the student of investment banking.

The autumn quarter deals with the fundamentals of auditing. The major portion of the quarter is devoted to the balance-sheet audit, while the detailed and cash audits are only briefly considered. The spring quarter is devoted largely to a study of investigations for refinancing, for the determination of profits, and for other purposes which have become of primary importance both to bankers and to professional accountants. Report writing and the preparation of statements for the business executive or for the client are also studied.

The classroom discussions are based upon actual cases presenting the most recent views of recognized leaders in the profession. Prerequisite: for Course 222*a*, consent of instructor; for Course 222*b*, Course 222*a*.

222a. 4 units, autumn quarter
222b. 4 units, spring quarter (JACKSON)
Autumn, 31; spring, 23

223. Operating Reports.—A discussion of the character of reports essential to the proper management of a concern with respect to internal operations; particularly the problems of inventories, of manufacturing, of purchasing, of labor turnover, and of budgetary control. Prerequisites: Courses 3*b* and 5.

5 units, spring quarter (ROBBINS)
Spring, 19

225. Public Utilities.—A study of the problems that arise in connection with the regulation of public utility companies (electric light and power, gas, street railway, telephone, and water). Prerequisite: Consent of the instructor.

5 units, spring quarter (JONES)
Spring, 15

239a. Price Forecasting.—Economic laws governing commodity prices, methods of statistical study, and application to price forecasting. A familiarity with the theory of business cycles and of the general price level is presupposed, as well as knowledge of elementary statistical methods.

3 units, winter quarter (WORKING)
Winter, 3

241. Seminar in Labor Problems.

[Not given in 1929–30]

245. Consolidated Reports.—Accounting principles involved in the construction of consolidated balance sheets and consolidated income statements.

[Not given in 1929–30]

246. Public Revenues.—The notion of taxable income; what and how much the state may undertake; the apportionment of burdens and the allocation of benefits; the incidence of taxes and their articulation into a system: (*a*) what, (*b*) how much, (*c*) from whom, (*d*) to whom, (*e*) how?

4 units, summer quarter (DAVENPORT)
Summer, 9

247a and b. Advanced Theory.—A critical analysis of recent writings in general economic theory. The members of the class will be expected to participate freely in discussion. Prerequisites: Courses 100*a* and 100*b*, or equivalent; 247*a* is a prerequisite to 247*b*. Seniors may be admitted with the consent of the instructor.

247a. 4 units, autumn quarter
247b. 4 units, winter quarter (HALEY)
Autumn, 9; winter, 9

248. Theories of Social Reform.—A historical study of the various proposals which have been made for the reformation or reconstruction of society.
4 units, summer quarter (HALEY) [Not given in 1929–30]

251. Seminar in Agriculture.—Prerequisite: Course 24, and the consent of instructor.
Winter quarter (ANDERSON) By arrangement
Winter, 6

252. Seminar in Economic Theory.—This seminar is designed for graduate students.
Spring quarter (HALEY) By arrangement
Spring, 8

254. Problems of International Finance.—A study of international relations arising from loans and other capital transactions between different states, including the reparation problem and the interallied debt problem. Advanced knowledge of economic principles and of finance is desirable.
4 units, summer quarter (BONN)
Summer, 7

DIVISION OF ACCOUNTANCY

Nature and Purpose.—The Division of Accountancy is created to administer a professional training course in Accountancy. The course attempts to organize the existing facilities of instruction in the University in such a way that the body of knowledge necessary to the competent practice of accounting can be most readily acquired. That body of knowledge includes: (1) a sound foundation in general mathematics and statistical method; (2) a ready and full command of certain commercial branches of private law; and (3) a real understanding of the conduct of men in their business relations and of the public problems arising from economic behavior. To this substantive knowledge must be added modes of procedure adequate for the highly specialized statistical work that constitutes the principal work of the accountant's calling.

Graduation.—In order to arrange most conveniently a program leading to the degree of Bachelor of Arts in Economics and Accountancy, the student should consult his department and division advisers as early as possible after matriculation. The following courses are required, but the indicated sequence of work is an advisory, not a required order.

First and Second Years.—Satisfaction of the Lower Division requirements; Elements of Accounts, Elements of Cost Accounting, Elementary Economics, and 15 to 20 units of mathematics and statistical methods.

Third Year.—Corporation Finance, Accountancy of Investment, Valuation, Federal Tax Procedure, Cost Analysis.

Fourth Year.—Principles of Economics, Auditing and Accounting Procedure, Capital and Income, and either Business Law (9 units) or Contracts (8 units). Financial Reports, Operating Reports, Consolidated Reports, and Accounting Problems may be taken as electives, or, in case of schedule conflicts, as substitutes for other Upper Division work.

Degree of Master of Arts.—A fifth year's program, leading to the degree of Master of Arts in Economics and Accountancy, may be arranged. This should include courses in Agency, Bills and Notes, Bankruptcy, Private Corporations, and any advanced courses in accounting not taken in the undergraduate years. Applicants for the Master's degree will be admitted to candidacy upon oral examination. Fifth-year students who mean to enter practice rather than teaching are usually advised not to become candidates for the Master's degree.

DIVISION OF SOCIOLOGY

Students may major in the Division of Sociology within the Department of Economics, or simply within the School of Social Sciences. Those who wish to major in this division within the Department of Economics must add to the courses required by the department for Economics majors Course 2 (Elements of Sociology) and Course 101 (Labor Problems). They are urged also to include in their curriculum courses in psychology, ethics, and statistics.

Students in the Division of Sociology of the School of Social Sciences, in addition to meeting the requirements of the School of Social Sciences, must take at least thirty units in sociology.

Advanced Degrees.—Candidates for higher degrees may choose Sociology as a major or minor. The following may be considered as fields of study within Sociology as a whole:

1. Sociological Theory and Its Development
2. Social Psychology and Its Applications, including Race Relations
3. Social Economy and Social Legislation; Standards of Living
4. Social Pathology: Crime, Poverty, Dependency, Physical and Mental Weakness
5. Geographic Basis of Society
6. Biologic Aspects of Society, and Eugenics
7. Social Evolution and the Study of Institutions: Family, Industry, Religion
8. Population, Immigration
9. Urban and Rural Sociology

It is not expected that candidates should be equally prepared in all of these fields, selection and emphasis being dictated by interests and previous preparation; but an acquaintance with the first mentioned (number one) is expected in all cases.

Medical Social Work.—Opportunity for full-time training in Medical Social Work is available at the Stanford University Clinics in San Francisco under the supervision of the Director of Social Service. Opportunity will be given for experience in connection with the Children's Clinic, Women's Clinic, and the General Medical Clinics, as well as with the hospital.

Course Primarily for Lower Division Students

2. Elementary Sociology.—This course is an elementary study of social principles and problems which are found in human relations as expressed in social organization and institutions. Prerequisite: completion of Citizenship, or full exemption therefrom.

5 units, autumn, *winter, *spring, and *summer quarters (Beach, LaPiere)
Autumn, 123; winter, 169; spring, 74; summer, 52

Courses Primarily for Upper Division and Graduate Students

101. Labor Problems.—A general course. The topics considered include the following: the rise of the wage-earning class, the industrial revolution, unemployment, woman and child labor, wages, collective bargaining, labor motives, and cultural aspects of labor life.

5 units, spring quarter (Reynolds)
Spring, 204

112. Social Processes.—This course, together with 113 and 114, affords a more extended survey of the general field and problems of sociology than is

given in Course 2. Course 112 studies the basic processes of group life, suggested by such terms as socialization, opposition, accommodation, co-operation.
5 units, autumn quarter (BEACH)
Autumn, 24

113. Social Evolution, Culture, and Progress.—A study of the factors and forces involved in the organization and modification of society. The meaning of culture, the nature of social change, the development of institutions, and the direction of progress are emphasized.
5 units, winter quarter (BEACH)
Winter, 103

114. Social Problems.—This course serves as an introduction to applied sociology. It includes a consideration of problems arising through economic or other factors and aims to throw light upon both the causes and possible amelioration of conditions of maladjustment.
5 units, spring quarter (REYNOLDS)
Spring, 154

115. Population.—A study of the theories of population and problems of quantity, quality, distribution, and standards of living in modern society.
5 units, autumn quarter (REYNOLDS)
Autumn, 93

116. Immigration.—A general introduction to the study of immigration in the light of the principles of population, with special reference to the composition of the American people and the social problems involved in the conflicting economic standards and cultures in the United States.
5 units, winter quarter (REYNOLDS)
Winter, 105

117. The Family.—This course studies the family as a social institution, its functions, development, and modern aspects. Problems of child welfare are considered, but very briefly.
5 units, autumn and *summer quarters (BEACH)
Autumn, 14; summer, 74

118. Criminology.—The social significance of crime and criminals; historical methods of dealing with criminals; causes and treatment of crime from the viewpoint of processes of social interaction and social control. Present trends in: the study of crime; legislation; court procedure; prison systems; and crime prevention. Prerequisites: Economics 1 and 2, and Psychology 51.
5 units, winter quarter (REYNOLDS)
Winter, 216

121. Cultural Anthropology.—An introductory course in the study of man and his culture, with the emphasis upon the significance of culture and culture building for sociology. Consideration is given to fossil and prehistoric man, palaeolithic and neolithic cultures, types of primitive social organization, primitive arts and mythology, the modern races, the origin and spread of culture traits, and culture building. Prerequisite: Course 2.
5 units, spring quarter (REYNOLDS)
Spring, 1

203. Development of Sociological Theory.—A historical and analytical study of leading sociological thinkers as a basis for an understanding of society and its problems.
Autumn and winter quarters (BEACH)
Autumn, 8; winter, 1

216. Seminar in Social Legislation.—The intervention of the state in protection of less favored classes and for the common social welfare is studied

through special topics for individual investigation and report. Topic for 1929–30: Legislative aspects of child welfare.
4 units, winter quarter (Beach)
Winter, 4

230. Social Progress.—An analysis and evaluation of this basic concept in sociology. Open to graduates and properly qualified seniors.
5 units, summer quarter (Case)
Summer, 39

231. Ethnology and the Culture Concept.—A study of the concept of culture, as developed by students of anthropology and ethnology. Open to graduates and properly qualified seniors.
5 units, summer quarter (Case)
Summer, 17

HISTORY

Edgar Eugene Robinson, Ephraim Douglass Adams, Edward Maslin Hulme, Ralph Haswell Lutz, †Percy Alvin Martin, Payson Jackson Treat, Professors
Charles Wilson Hackett (University of Texas), Acting Professor (Winter and Spring Quarters)
Carl Russell Fish (University of Wisconsin), Acting Professor (Summer Quarter)
Yamato Ichihashi, Associate Professor
Robert Cedric Binkley (Smith College), Carroll Brown Malone, Acting Associate Professors (Summer Quarter)
Carl Fremont Brand, Assistant Professor
Edward Leon Harvey, Acting Assistant Professor
Harold Henry Fisher, Lecturer
Mitchell Pirie Briggs, Acting Instructor (Winter and Spring Quarters)

The Department of History provides a liberal course for the degree of Bachelor of Arts, offers opportunity for graduate study leading to higher degrees in certain selected fields in which the University is especially well equipped, trains teachers of History, and renders a general service to the other departments of the University.

In addition to its more specialized work, the department offers a number of courses grouped as (I) Introductory and (II) Advanced Lecture Courses intended to meet the general needs of the University constituency. The underlying principle of these courses is that they shall be useful, not in the utilitarian sense, but in the sense that they aid in equipping the student for his duties as a citizen and in giving him instruction that may be helpful in such work as law, journalism, library research, state and national public service, and in business where a knowledge of domestic and foreign affairs is desirable.

Graduation.—For History majors the curriculum for the degree of Bachelor of Arts is designed to familiarize the student with the fundamentals and methods of the chief branches of knowledge, and with the methods of historical science. With this object in view, a general system of

† Absent on leave, 1929–30.

advice and requirement has been outlined, but it may be varied to suit the circumstances of the truly exceptional student. Under the four-quarter system 180 units are required for graduation. The general system of the Department of History prescribes 45 units of History, of which 3 are required in an Introductory Seminar, and 6 in one or two Seminar Courses. In addition to the requirements of the Lower Division the department requires eight units in Economics or Political Science, and a reading knowledge of at least one foreign language by the end of the junior year. Upper Division students who have been admitted without having met the specific Lower Division requirements will be expected to offer 20 units in Economics and/or Political Science, 10 units in English Composition, a laboratory course in science, and the reading knowledge of a foreign language.

Advanced Degrees.—Graduate students, candidates for advanced degrees, are desired and will be given personal guidance, but the purposeless graduate student will not be accepted by the department. For the degree of Master of Arts, the University Library contains adequate material in all of the customary lines of historical study. This is true also in general for the degree of Doctor of Philosophy, and there are certain special fields in which the library is unusually well equipped. These are (1) English-American relations of the nineteenth century, in which topic Stanford possesses nearly all the printed documentary material anywhere available (Professor Adams). (2) The Far East, as well as the history of Australasia (Professors Treat, Ichihashi). (3) The history of California since the American occupation, particularly the political history of the state, where use may be made of the materials gathered under the provisions of the Borel Fund (Professor Robinson). (4) The French Revolution, especially in relation to political pamphleteering of the earlier years of the Revolution (Professor Lutz). (5) English history since 1200, and Canadian history since 1840 (Professor Brand). (6) An effort is being made to strengthen the material in South American history; this is now sufficient to permit of advanced research work in the history of Brazil, in which field an extensive collection of Braziliana recently donated to the University by the late President-Emeritus Branner is available to graduate students (Professor Martin). (7) The period of renaissance in Europe (Professor Hulme). (8) Modern history of Russia and of the lesser Slavic nations, and (9) the World War, especially in relation to industrial, political, and social questions in all of the countries of the world, and in relation to the claims of the nations before the Peace Conference at Paris. By the generosity of Mr. Herbert Hoover a great history collection on the war is now being organized at Stanford University. In addition to comprehensive purchases of important war books, the collection is rich in sets of government documents of the leading nations, in "delegation propaganda" placed before the Peace Conference by sixty states, and in publications of the leading societies, some seven hundred in number, of France and of Great Britain. Not all of this material is as yet organized and ready for use, but graduate students will be given facilities for research in special fields.

Courses in the history department are arranged in four groups. The third and fourth groups cover, in general, the principal courses from which the graduate student may select, though he may be admitted at the discretion of the department to any of the general introductory, or the advanced lecture courses. The department requires for the Master's degree the presentation of an acceptable thesis, and the passing of a written examination on elementary facts of two of the main historical fields. The work of can-

didates for the degree of Doctor of Philosophy cannot be determined in advance by any list of specific courses regularly offered; such candidates will be given guidance in the field selected from those indicated above.

The department has several student assistantships at $300 each which are customarily given to candidates for advanced degrees. There is also a University scholarship of $500 a year granted to a woman student in the history department.

Graduate students seeking to fulfill the requirements of the State Board of Education for the *Teacher's Certificate* will be given the necessary aid and opportunities, but will register as majors in the School of Education. (See *Announcement of the School of Education.*)

The Teacher's Recommendation in History.—Applicants for the departmental recommendation, as a major, must have completed in a manner acceptable to the department at least 45 units of History, as follows: Introductory Courses, 27 units; Advanced Lecture Courses, 9 units; Introductory Seminar Course, 3 units; Seminar Courses, 6 units.

For a teaching minor either European or American History may be offered:

a) European History—selected from Introductory Courses in Ancient, Medieval, Modern European, English, and Far Eastern History, 15 units; Advanced Lecture Courses in these fields, 6 units; Introductory Seminar Course in one of these fields, 3 units.

b) American History—similar to a minor in European History, but courses in American and Latin-American History must be selected.

The Teachers' Course in History, as offered by the School of Education, is a prerequisite for either a teaching major or minor. (See Education 214.)

I. INTRODUCTORY COURSES

[**Greek History.**—See Classical Literature, Courses C1, 2, 3, 4.]

[**Roman History.**—See Classical Literature, Course C5.]

10. European History, 395–1300.—A general course dealing with the development of medieval life and institutions, with special attention to feudal conditions, and also to the Church as the controlling force influencing every element of life of the time. Open to all students.

3 units, autumn quarter (HULME) MWF 9
Autumn, 230

11. European History, 1300–1600.—A continuation of History 10, with special emphasis upon the Renaissance and the Reformation. Open to all students.

3 units, winter quarter (HULME) MWF 9
Winter, 240

12. Europe since 1600.—A survey of the political, economic, and social development of the European nationalities, with special emphasis upon the period of absolutism, industrial revolution, French revolution, growth of democracy and nationalism, and the World War. Open to all students.

3 units, spring and summer quarters (HARVEY, BINKLEY) MWF 9
Spring, 193; summer, 41

14. History of Russia.—A general survey with special emphasis on the period since 1682. Open to all except freshman students.

3 units, winter quarter (FISHER) [Not given in 1929–30]

16. English History to 1603.—A general outline course on the making of the English state and nation to the death of Elizabeth, with emphasis

upon events and institutions especially significant for the later history of the English-speaking peoples. Open to all students, though especially intended for those in the Lower Division.
5 units, autumn quarter (BRAND) MTWThF 11
Autumn, 116

17. England since 1603, and British Overseas Expansion.—A continuation of History 16.
4 units, winter quarter (BRAND) MTWTh 11
Winter, 125

21. American History, 1607–1789.—A survey of the English colonization of the Atlantic Seaboard and of the westward movement of colonists of the British Empire, followed by a consideration of the Revolution and of the formation of the American government. Open to all students.
3 units, autumn quarter (ROBINSON) MWF 10
Autumn, 163

22. American History, 1789–1860.—Presidential administrations from Washington to Lincoln; the War of 1812; industrial changes and expansions; abolition; political changes; territorial expansion. Open to all students.
3 units, winter quarter (BRIGGS) MWF 10
Winter, 214

23. American History, 1860–1920.—Slavery issues; the Civil War; reconstruction; industrial changes; new political parties and theories; the United States and world politics. Open to all students.
3 units, spring and *summer quarters (BRIGGS, FISH) MWF 10
Spring, 185; summer, 44

24. The Westward Movement.—A survey of the expansion of the American people into the Mississippi Valley, and the American occupation of the Pacific Northwest and of California. Open to all except freshman students.
5 units, winter quarter (ROBINSON) [Not given in 1929–30]

27. The Far East.—An account of the relations between Western nations and the peoples of Eastern Asia. Emphasis is placed upon international relations, especially since the middle of the nineteenth century, rather than upon the domestic history of the Eastern nations. The work of the Portuguese, Dutch, and British is studied and special attention is given to the rise of the British Empire in India. Open to all except freshman students.
5 units, autumn quarter (TREAT) MTWThF 9
Autumn, 173

28. The Far East.—The relations of the West with China, Indo-China, Japan, and the Philippines. Open to all except freshman students.
5 units, winter quarter (TREAT) MTWThF 9
Winter, 213

31. History of Japan.—A general survey of the political, social, and economic development from the foundation of the empire to the present time. Open to all except freshman students.
5 units, spring quarter (ICHIHASHI) MTWThF 9
Spring, 166

36. History of Spanish America.—An outline course, dealing chiefly with the Spanish Colonial System and the Spanish-American Wars of Independence. Open to all except freshman students.
5 units, winter quarter (HACKETT) MTWThF 9
Winter, 90

37. History of South America since 1823.—A continuation of History 36. An outline course dealing with the history and institutions of the leading

nations of South America; includes the discussion of such topics as the Monroe Doctrine, Pan-Americanism, and the relations between the United States and Latin America.
5 units, spring quarter (HACKETT) MTWThF 9
Spring, 134

40. The Nineteenth Century and the World War.—A general survey of world politics in the nineteenth century and of the causes and conduct of the World War. Open to all students.
3 units, spring quarter (FISHER) MWF 11
Spring, 212

II. ADVANCED LECTURE COURSES

[The courses in this group are intended for students of at least junior standing, but sophomores may be admitted at the discretion of the instructor.]

137. European Thought and Culture.—The history of various movements of thought and ideals of culture and conduct that have been influential in the life of Western Europe.
2 units, spring and *summer quarters (HULME) TTh 9
Spring, 72; summer, 48

138. Historical Method.—A course preparatory to historical research and to the teaching of history. It discusses what history is, what it is for, what are its materials, what are its methods, what are its relations to neighbor studies, how to read history, how to study it, and how to write it. It also provides for introductory studies of some of the sciences that are auxiliary to history.
3 units, summer quarter (HULME) MWF 9
Summer, 18

139. The End of the Middle Ages.—A study of the phenomena, such as the rise of towns, of new nations, and of new thought, that, in the twelfth and thirteenth centuries, prepared the way for the Renaissance.
3 units, autumn quarter (HULME) MWF 11
Autumn, 45

140. The Italian Renaissance.—The development of the new humanism in its relations to the political, social, and religious life of the time. The lectures deal with the sources as well as the evolution of the new and broadening thought of this critical and formulative period; with the revival of nationality and individuality, of literature, of art, of science, and of conscience, with the changing economic and social conditions; and with the development of political theory and the transformation of law.
3 units, winter quarter (HULME) MWF 11
Winter, 27

141. The Reformation.—A study of the causes of the ecclesiastical revolt in the sixteenth century, of the progress of the movement in its various phases, of its more immediate results, and of its bearing upon the life and thought of our own day.
3 units, spring quarter (HULME) MWF 11
Spring, 40

142. The French Revolution and the Napoleonic Era.—A study of the conditions in France before 1789, the Revolution from 1789 to 1799, the organization of France under Napoleon, and the character of the Napoleonic empire.
3 units, winter quarter (LUTZ) MWF 10
Winter, 77

143. Europe, 1814–1870.—A study of European diplomacy, the conflict between reaction and liberalism, the industrial revolution and emergence of class

consciousness, and the national and constitutional movements of the middle of the nineteenth century.
3 units, autumn quarter (Lutz) MWF 10
Autumn, 51

144. Europe, 1870–1927.—A study of the government, parties, and political problems of the leading nations since 1870. Special attention is given to economic imperialism in the partition of Africa, the system of secret alliances, the causes of the World War, and the political reorganization of Europe.
3 units, summer quarter (Lutz) MWF 10
Summer, 36

145. The German Revolution.—A study of Germany during the World War, the Revolution of 1918, and the period of reconstruction to the present time.
3 units, spring quarter (Lutz) [Not given in 1929–30]

147. Nationalism and Imperialism.—Lectures, discussions, and reading in the origins and history of nationalism and economic imperialism.
3 units, winter quarter (Fisher) [Not given in 1929–30]

148. Europe, 1559–1648.—An attempt to give an account of the ascendancy of France after the Wars of Religion, with such reference to the history of other countries as is necessary to understand the position of France.
3 units, autumn quarter (Harvey) MWF 8
Autumn, 9

152. The Russian Revolution.—The political and social history of Russia during the war and the revolution.
3 units, spring quarter (Fisher) [Not given in 1929–30]

153. The New Europe.—A study of post-war Europe, particularly of the origins and political and social problems of the new states of Eastern Europe and the Balkans.
3 units, autumn quarter (Fisher) [Not given in 1929–30]

156. History of Canada.—A survey of the evolution of the Dominion of Canada. Preliminary consideration of the periods of discovery, of early trade and settlement by French and British, and of the contest between France and Britain for empire, followed by a survey of the further development of the several colonies, their achievement of responsible government, their consolidation and expansion into a continent-wide federal dominion and growth to autonomous nationhood as a member of the British Empire Commonwealth. Emphasis also upon the significance in Canadian history of Canada's nearness to and relations with the United States.
4 units, spring quarter (Brand) MTWTh 10
Spring, 45

[History of Germany.—See Germanic Languages 90.]

158. British Constitutional History.—An attempt to explain the development, the underlying principles, and the operation of the British constitution. It is also the aim of the course to give a background for American constitutional history.
4 units, spring quarter (Brand) MTWTh 8
Spring, 43

159. England, 1485–1660.—A study of the political, social, and economic history of England, the beginning of overseas expansion, and the most important constitutional development.
3 units, winter quarter (Harvey)
Winter, 14

162. History of the West.—A consideration of the political phases of the expansion of the American people; an examination of new issues and new groups that have risen in the West and their influence upon national party history.
3 units, spring quarter (ROBINSON) TThS 8
Spring, 34

164. British-American Diplomatic Relations.—Lectures and reading on those incidents or conditions in foreign policy where the United States has come into conflict or contact with the foreign policy of Great Britain and her colonies since 1815; with a survey of the general purpose of British and of American foreign policy throughout the hundred-year period.
3 units, autumn quarter (ADAMS) TThS 10
Autumn, 38

165. Representative Americans.
2 units, summer quarter (FISH) TTh 10
Summer, 43

166. History of Australasia.—An account of British colonization in Australia and New Zealand to the present time. Open to third-year students who have a satisfactory knowledge of English history.
3 units, spring quarter (TREAT) TThS 9
Spring, 19

167. Tropical Colonization in the Far East.—A study of the present methods of the English, Dutch, French, and American governments in their tropical dependencies in the Far East. Open to students who have taken Course 27.
3 units, spring quarter (TREAT) [Not given in 1929–30]

168. Japanese Foreign Relations since 1894.—A critical examination of Japanese foreign relations beginning with the Chinese-Japanese War in 1894–95. Special attention will be given to her imperialism and to her position in world politics.
4 units, autumn quarter (ICHIHASHI) [Not given in 1929–30]

169. History of Japanese Civilization.—A survey of, and an attempt to interpret, the history of Japanese civilization. Special attention will be given to the religions, philosophy, literature, and arts, fine and industrial.
4 units, winter quarter (ICHIHASHI) MTWTh 8
Winter, 58

170. Government of Japan.—A critical study, with materials in Western languages, of the present governmental system of Japan in order to understand the underlying factors in the struggle between bureaucracy and democracy.
3 units, autumn quarter (ICHIHASHI) [Not given in 1929–30]

172. History of Modern China.
3 units, summer quarter (MALONE) MWF 8
Summer, 18

173. History of Chinese Civilization.
2 units, summer quarter (MALONE) TTh 8
Summer, 6

174. Recent Inter-American Relations and Problems.—Emphasis will be placed on relations with Mexico since 1876 and with the countries of the Caribbean area since 1898.
3 units, spring quarter (HACKETT) MWF 11
Spring, 29

175. The American Constitution and American Ideals.—A special course for those wishing to fulfill the requirement for the Teacher's Certificate. Open to others by permission.
3 units, autumn quarter (Adams) T 2–4
3 units, *summer quarter (Robinson) TTh 11
Autumn, 24; summer, 21

176. Historiography.—A course designed to familiarize the student with the writings and influence of the great historians from Herodotus to the present time. The work consists of lectures, papers, and class discussions. Open to graduate students and to others at the discretion of the instructor.
3 units, spring quarter (Lutz) T 2–4
Spring, 7

III. INTRODUCTORY SEMINAR COURSES

[The courses in this group are intended primarily for History majors in their junior year as preparation for senior seminars, or graduate work. If a course is not filled by History majors, others may be admitted at the discretion of the instructor.]

177. Studies in Medieval and Renaissance History.—An introduction to the primary and secondary sources relating to selected topics in the history of the later Middle Ages and the Renaissance. Open to those who have had History 10 and 11, or their equivalent, and who can read at least one foreign language fluently.
3 units, spring quarter (Hulme) TTh 10
Spring, 15

180. Selected Topics in English History.—An introduction to materials for the study of English history, with assignments of special topics.
3 units, winter quarter (Brand) MWF 9
Winter, 9

184. The World War.—A general survey of the period of the war and the armistice, with assignment of special topics for study from materials in the Hoover War Library.
3 units, autumn and *summer quarters (Harvey, Binkley) MF 11
Autumn, 24 (2 sections); summer, 8

186. Selected Topics in American History.—An introduction to the study of materials on the history of the West.
3 units, spring quarter (Robinson) TTh 10
Spring, 11

190. Selected Topics in Far Eastern History.—Designed to introduce the student to materials in Western languages useful in the study of the modern history of the Far East. Open to those who have had History 28.
3 units, spring quarter (Treat)
Spring, 15

195. Selected Topics in Japanese History.—An introduction to materials in Western languages useful in the study of Japanese history. Papers, reports, and discussion in class.
3 units, autumn quarter (Ichihashi) [Not given in 1929–30]

196. Selected Topics in Latin-American History.—Special attention will be devoted to the history and institutions of Argentina, Chile, and Uruguay.
3 units, winter quarter (Hackett) MWF 11
Winter, 10

IV. SEMINAR COURSES

[For History majors primarily, of senior or graduate standing.]

205. Seminar in Medieval History.
3 units, autumn and winter quarters (Hulme) Th 2–4
Autumn, 9; winter, 9

207. Seminar in Modern European History. T 2–4
3 units, autumn, winter, spring, and summer quarters (Lutz)
Autumn, 1; winter, 14; spring, 11; summer, 8

208. Seminar in European History.
3 units, winter and spring quarters (Harvey)
Winter, 3; spring, 4

210. Seminar in the History of England and the British Empire. Th 2–4
3 units, autumn and winter quarters (Brand)
Autumn, 6; winter, 6

213. Seminar in the History of the West. M 2–4
3 units, autumn, winter, and summer quarters (Robinson)
Autumn, 13; winter, 8; summer, 12

219. Seminar in American Diplomatic History. W 2–4
3 units, winter and spring quarters (Adams)
Winter, 13; spring, 13

225. Seminar in the History of the Far East. T 2–4
3 units, autumn and winter quarters (Treat)
Autumn, 5; winter, 5

228. Seminar in Japanese History. Th 2–4
3 units, winter and spring quarters (Ichihashi)
Winter, 5; spring, 3

231. Seminar in Latin-American History.
3 units, winter and spring quarters (Martin) [Not given in 1929–30]

235. Senior Research.—Seniors who have completed the departmental requirements for the degree of Bachelor of Arts may receive individual guidance in problems of research.
Units, not to exceed 3 Hours by arrangement
Winter, 1; spring, 5

240. Graduate Work.—Students properly qualified under the University regulations to pursue genuine graduate studies are given special attention and due credit allotted for the work accomplished. Such students will receive individual advice and guidance, whether in set courses or in special research.
Units, not to exceed 15 Hours by arrangement
Autumn, 27 (7 groups); winter, 25 (9 groups); spring, 20 (9 groups); summer, 17 (3 groups)

JOURNALISM

Everett Wallace Smith, Professor
Buford O. Brown, Associate Professor
Thomas George Irwin, Instructor
Waldo J. Marra, Lecturer

The Journalism curriculum is based on the conviction that the proper college training for journalism provides (1) a broad foundation of general information, (2) more specific knowledge of economics, political science, history, and other subjects with which the journalist largely deals, and (3) some technical ability in journalism and an intelligent comprehension of the obligations and responsibilities of the profession.

The requirements of the Lower Division insure that the student will come into contact with the chief branches of human knowledge and lay a basis for more advanced studies along the lines of his particular needs and interests. The requirements of the School of Social Sciences insure his

specializing somewhat in the work of the departments of Economics, History, Philosophy, and Political Science, and in related subjects, at the same time leaving him opportunity for meeting the Journalism requirements and for electives.

Intending journalists are encouraged to engage in college journalism and thus obtain practical experience during their course. Students in the Division of Journalism who do such work systematically and under the supervision of the Division will be given credit for it toward graduation. Lower Division students who plan to enter the Division of Journalism may receive one unit of credit per quarter for regular work on *The Stanford Daily* under the supervision of the Division of Journalism.

In some of the Journalism courses the written work must be done on the typewriter. On this account and because ability to use the typewriter is necessary for practically all newspaper work, prospective Journalism students are advised to gain this ability as early as possible.

Graduation.—Students in the Division of Journalism will meet all the requirements of the School of Social Sciences, and will take a minimum of 30 units in Journalism, including News Writing (10 units), Copy Reading (5 units), American Journalism (3 units), and Ethics of Journalism (2 units). The work in Journalism will count toward the 80 units required by the School of Social Sciences, but will not replace any of the 36 units specifically required.

Degree of Master of Arts.—The Division of Journalism is prepared to offer courses leading to the Master's degree. Editors and publishers of a large number of vigorous newspapers in rural communities and small cities, as well as in the metropolitan centers nearby, have shown a gratifying willingness to co-operate with students who are carrying on investigations. Extensive files of European and American newspapers in the Hoover War Library are valuable for this work.

COURSES OF INSTRUCTION

100. News Writing I.—Study of the structure of the news story and of news values, with practice in writing. Sources of news and methods of news gathering. Newspaper organization and news-gathering organizations. All writing in the course must be done on a typewriter.
5 units, autumn quarter (IRWIN) MTWThF 8
Autumn, 38

101. News Writing II.—A continuation of Course 100. Writing of more difficult news stories, and under time limitation.
5 units, winter quarter (IRWIN) MTWThF 8
Winter, 42

102. Copy Reading.—A continuation of Course 101. Copy reading, headline writing, proofreading, make-up.
5 units, spring and *summer quarters (IRWIN, SMITH) MTWThF 8
Spring, 38; summer, 1

103. Practical Reporting.—Theoretical study of news gathering and writing, and practical application of these theories in work as reporters for the summer edition of *The Stanford Daily,* under supervision of the instructor with individual conferences. In the class meetings there are discussions of the problems and methods of reporting, the structure of the news story, sources of news, newspaper organization, news-gathering organizations, and similar topics. All writing in the course must be done on a typewriter.
5 units, summer quarter (SMITH, BROWN) MTWThF 8
Summer, 13

104. Practical Editing.—Practical work in copy-reading, headline writing, editorial writing and the direction of editorial policy, proofreading, and the editorial conduct and direction of a newspaper. The class meets in daily conference with the instructor, and there are individual conferences as problems arise, or as the student or the instructor sees the need.
5 units, summer quarter (SMITH, BROWN) MTWThF 2
Summer, 9

120. Elementary Practice.—Practical work in news gathering and writing for *The Stanford Daily* or other newspapers, or on the business staff of a campus publication, with conferences. One unit of credit for three hours of work of a character satisfactory to the Division of Journalism. Open only to Journalism major students, with a maximum credit of two units a quarter, or to Lower Division students preparing to enter the Division of Journalism, with a maximum credit of one unit a quarter.
1 or 2 units, autumn, *winter, and *spring quarters (SMITH, BROWN, IRWIN)
5 units, summer quarter (SMITH, BROWN) By arrangement
Autumn, 23; winter, 20; spring, 24; summer, 1

121. Advanced Practice.—Practical work in executive positions on the editorial or business staffs of campus publications, with conferences. One unit of credit for three hours of work. Open only to Journalism major students, with a maximum of three units a quarter, or to Lower Division students preparing to enter the Journalism Division, with a maximum credit of one unit.
1 to 3 units, autumn, *winter, and *spring quarters (SMITH, BROWN, IRWIN)
Autumn, 24; winter, 24; spring, 22 By arrangement

130. Editorial Writing.—Study of the function of the editorial, with practice in writing.
5 units, autumn quarter (SMITH) MTWThF 11
Autumn, 13

134. Feature Article.—Study of the feature article for newspapers and magazines, with practice in writing.
5 units, autumn quarter (SMITH) TTh 2–4
Autumn, 9

140. American Journalism.—A survey of the development of American newspapers, and a study of the work and influence of outstanding journalists.
3 units, autumn and *spring quarters (SMITH) MWF 11
Autumn, 1; spring, 46

141. Ethics of Journalism.—A consideration of problems of conduct and practice in newspaper writing, editing, and publishing.
2 units, autumn and *spring quarters (SMITH) TTh 11
Autumn, 3; spring, 42

150. Editorial Management.—The conduct of the small town and country newspaper, with emphasis on the news and editorial side; the problems of the executive who directs editorial and news policies; the relation of news and editorial departments to advertising and circulation, and of news and editorial departments to each other.
5 units, winter quarter (BROWN) MTWThF 9
Winter, 13

156. Business Management.—The conduct of the small town and country newspaper on the business side; costs, advertising problems, circulation, and other elements in the maintenance of a newspaper as a profit-making business enterprise. Open to those who have passed Journalism 110, and others by permission.
5 units, spring quarter (BROWN) MTWThF 9
Spring, 46

160. Advertising Problems.—A course in the principles and practice of advertising for students who are training for journalism, and covering the subject from the standpoint of the newspaper office, especially with regard to small city and country papers. The course includes work in the theory and practice of modern business letters. It will cover the principles of correct correspondence, good diction, and the use of sales appeals plus practical problems covering different phases of modern business writing. Enrollment is limited, and preference will be given to Journalism majors. Not open to Lower Division students.

1 or 5 units, winter quarter (BROWN, MARRA) MTWThF 8
Winter, 26

170. Seminar in Business Problems of the Newspaper.—Open to senior or graduate students who have had the necessary prerequisites.

3 units, autumn, *spring, and *summer quarters (BROWN) By arrangement
Autumn, 2; spring, 8; summer, 3

176. Seminar in Writing and Editorial Work.—Open to senior or graduate students.

Autumn, *winter, and *summer quarters (SMITH) By arrangement
Autumn, 5; winter, 3; summer, 2

[**Teachers' Course in Journalism.**—See Education 215.]

PHILOSOPHY

HENRY WALDGRAVE STUART, HAROLD CHAPMAN BROWN, Professors
EVANDER BRADLEY MCGILVARY (University of Wisconsin), Acting Professor (Summer Quarter)
HOWARD DYKEMA ROELOFS, Associate Professor
HUGH VERNON WHITE (College of the Pacific), Assistant in Instruction (Summer Quarter)

The requirements for graduation in this department constitute an adequate preparation for advanced studies in Philosophy and leave opportunity for the other elements of a general or liberal education. Major students are required to present for the degree of Bachelor of Arts 35 units in Philosophy (in which Courses 1, 2, 100, 101, 102, and 200 must be included), the general courses in Psychology and in Medieval and Modern European History or English History (which should be taken during the first two years in the University), and at least 5 units in a laboratory course in a natural science. The second-year courses in French or German are recommended as a part of the Lower Division work of intending major students. Each major student will be expected to devote sufficient time to a minor subject to gain a substantial knowledge of some one of its principal divisions or aspects.

Graduate Study.—The department will, as a rule, enroll students for one year only of graduate work, leading to the degree of Master of Arts or to a minor for the degree of Doctor of Philosophy. The thesis for the Master's degree will ordinarily be so planned as not to represent more than one-third of the student's whole work for the year. All candidates for advanced degrees will be required to pass a written final examination of a general character covering the main branches of philosophical study, including the history of philosophy.

Library.—The philosophical section of the General Library contains at present (1) upward of twenty complete sets of the leading philosophical journals—for most of which current subscriptions are carried, (2) the best available editions of the works of the principal philosophers, and (3) an extensive and constantly increasing collection of standard and contemporary literature—historical, critical, and constructive—covering the various fields of philosophical study.

ELEMENTARY COURSES

1. Logic.—The principles of Logic, and the important types of fallacy. Open to all students.
5 units, autumn quarter (BROWN, ROELOFS) TWThF 9
Autumn, 95 (2 sections)

2. Ethics.—A short survey of the morality of primitive peoples as compared with more developed forms of morality. The working principles of good conduct. The important historic theories as to the ethical criterion. Prerequisite: second-year standing.
5 units, autumn quarter (BROWN) TWThF 11
Autumn, 84

3. Modern Scientific Conceptions of Nature and Mind.—A study of current views of cosmic structure and the place of man and his activities in nature, in the light of recent developments in physical chemistry, evolutionary biology, and psychology.
5 units, winter quarter (BROWN) TWThF 11
Winter, 97

4. Aesthetics.—The origins and nature of art. Its significance for religion, morality, and social life. The rise of art forms. Contemporary theories of aesthetics. Prerequisite: second-year standing.
5 units, spring quarter (BROWN) TWThF 9
Spring, 76

7. Introduction to Philosophy.—Prerequisite: second-year standing.
5 units, summer quarter (MCGILVARY) TWThF 10
Summer, 36

10. Major Traditions of European Philosophy.—The nature of philosophy as shown in its history. The principal philosophical tendencies or schools in their historical sequence, with some account of their foremost representatives. Prerequisite: second-year standing.
5 units, spring quarter (ROELOFS) TWThF 10
Spring, 100

INTERMEDIATE COURSES

100. Greek Philosophy.—From Thales to Plotinus.
5 units, autumn quarter (ROELOFS) TWThF 8
Autumn, 37

100a. Greek Civilization and Philosophy.—A study of the geographical conditions, the religious and moral beliefs, and the social institutions out of which arose the thought-models used by the Greek philosophers. In tracing the development of Greek philosophy, the emphasis will be upon the interplay of historical events and logical criticism. Open to all Upper Division students.
5 units, summer quarter (ROELOFS) TWThF 8
Summer, 12

101. Medieval and Modern Philosophy.—From Augustine to Berkeley.
5 units, winter quarter (ROELOFS) TWThF 8
Winter, 27

102. Modern Philosophy.—From Hume and Kant to the close of the nineteenth century.
5 units, spring quarter (ROELOFS) TWThF 8
Spring, 23

103. Plato and Platonism.—Prerequisite: Course 100.
5 units, winter quarter (ROELOFS) TTh 2–4
Winter, 7

104. Aristotle.—The divisions and basic principles of Aristotle's system. The extent and nature of its historic influence. Prerequisites: Courses 100 and 101.
5 units (ROELOFS) [Not given in 1929–30]

110. Mysticism.—Important historic mystical philosophies. The distinctive elements of mysticism as a type of thought and experience. Expressions of mysticism in religion and literature.
5 units (ROELOFS) [Not given in 1929–30]

120. The History of Intelligence.—The mental processes of primitive peoples. The beginnings of thinking and the ideal of truth. Great movements in intellectual progress. Contemporary forms of truth-seeking in art, science, and religion. Prerequisite: Course 1, 2, or 3.
5 units (BROWN) [Not given in 1929–30]

130. The Social Order and the Individual.—Insect and animal "societies" and the types of human social organization. Social authority and individual initiative. The ethical basis of political obligation and the authority of the state. Types of political theory. Prerequisite: Course 2 or an equivalent.
5 units, winter quarter (STUART) TWThF 9
Winter, 12

131. Ethical Principles and Practical Life.—A comparative study of selections from Aristotle, the Stoics, the New Testament, Herbert Spencer, Matthew Arnold, Nietzsche, and Tolstoy. The contemporary historical conditions of various sorts which were influential in forming each type of ethical teaching, and the practical tendencies of each type as applied in actual behavior.
5 units (STUART) [Not given in 1929–30]

140. Religion.—The psychological and social origins of religion. The relations of religion to science, to morality, and to philosophy. The distinctive content and characteristics of the great religions.
5 units (STUART) [Not given in 1929–30]

150. Elements of General Philosophy.—An introductory view of the problems of metaphysics and the theory of knowledge. How these problems arise in the ordinary course of our experience. The more important types of answer which have been offered for them. Open to all Upper Division students.
5 units (STUART) [Not given in 1929–30]

175. Directed Reading.
2 units, winter quarter (BROWN, ROELOFS) W 7:30 P.M.
2 units, spring quarter (BROWN) W 1
Winter, 7; spring, 7

ADVANCED AND GRADUATE COURSES

200. The Problems of Contemporary Philosophy.—A constructive discussion of the main problems of general philosophy. Prerequisites: Courses 100, 101, 102, and 150, or an equivalent.
5 units, spring quarter (STUART) TWThF 11
Spring, 14

210. The Nature and Function of Mind.—A critical examination of the relations of mind to consciousness, the psychical, and physical nature. An

effort will be made to attain a definition of mind and exhibit its place in the economy of life. Prerequisites: Courses 3, 100 (or 101 or 102), 120 or 150.
5 units (Brown) [Not given in 1929–30]

211. The Influence of Scientific Ideas on Contemporary Philosophy.—An analysis and constructive criticism of the problems of contemporary philosophy with special emphasis on their relations to current scientific conceptions. Prerequisites: Courses 3, 100 (or 101 or 102), 120 or 150.
5 units, winter quarter (Brown) TWThF 10
Winter, 7

212. The Influence of Scientific Ideas on Contemporary Philosophy.—A continuation of the foregoing. Students who have had Course 200 or 210 but not 211 will be admitted on approval.
5 units, spring quarter (Brown) By arrangement
Spring, 4

215. Modern Philosophical Theories Based on Present-Day Physical Concepts.—A critical study of important current literature.
5 units, summer quarter (McGilvary) By arrangement
Summer, 3

220. The Philosophy of the State.—An investigation of certain leading theories of the state with reference to the philosophical points of view which underlie them. Lectures, readings, discussions, and reports.
5 units, summer quarter (Roelofs) TTh 2–4
Summer, 4

225. Seminar.

225a. Selected Topics.
Autumn quarter (Brown, Roelofs) W 7:30 P.M.
Autumn, 4

225b. Recent Literature of Ethical Theory.
Winter quarter (Stuart) W 3–5
Winter, 6

225c. Recent Literature of Practical Ethics.
Spring quarter (Stuart) W 3–5
Spring, 1

225d. Aristotle.
Spring quarter (Roelofs) W 7:30 P.M.
Spring, 4

250. Thesis.
(Stuart, Brown, Roelofs) By arrangement

POLITICAL SCIENCE

Edwin Angell Cottrell, †Graham Henry Stuart, Professors
Rudolf Holsti (Finnish Minister in Switzerland), Acting Professor (Summer Quarter)
Thomas S. Barclay, Walter Thompson, Associate Professors
Harold H. Sprout, Acting Assistant Professor
John N. Edy, Jackson H. Ralston, Chester H. Rowell, Lecturers
Flora May Fearing, Acting Instructor (Summer Quarter)

[With the co-operation of Professors Cathcart, Morrison, and Whittier of the School of Law.]

It is the purpose of the Department of Political Science to provide instruction for (*a*) those students, whatever their special interests, who desire to be

† Absent on leave 1929–30.

informed about the organization, relationships, and processes of political institutions, and (*b*) those who desire to become teachers or investigators in political science. The courses offered by the department are so planned that, together with certain courses in Economics, History, Law, and Philosophy, they constitute a systematic and fairly complete treatment of the subject. Each course, except Course 1, deals with a special phase of the subject and has a definite relation to all of the other courses offered, but is so presented as to be complete in itself. Course 1 serves as a general survey of political science and as an introduction to all the other courses.

Graduation.—The department accepts as major students both the specialists and those desiring the fundamentals of a liberal education. The minimum requirements for the recommendation for the degree of Bachelor of Arts in Political Science are the completion (1) of the work of the Lower Division (or its equivalent) and (2) of about forty units of Political Science. The department will endeavor to arrange the program of each of its major students to fit his particular aims. Certain courses in Economics, History, Law, and Philosophy may be counted as Political Science at the discretion of the department. Students are advised to complete Courses 1, 2, and 15, in Political Science, while registered in the Lower Division.

Students desiring to prepare for foreign service or for municipal management are invited to confer with the department respecting the opportunities in these lines and the course of study for each.

Advanced Degrees.—The department is prepared to accept candidates for the degrees of Master of Arts and Doctor of Philosophy and direct their work in the following branches of the subject: political theory; governmental organization and relationships; elections and parties; legislative organization and methods; administration; institutions for local government; international relations; foreign service.

In addition to the requirements laid down by the Committee on Graduate Study, each candidate for an advanced degree in political science may be required to take a written and an oral examination in the subject during the first quarter of his graduate study, for the purpose of enabling the department to form a reliable judgment of his proposed program of study. Also each candidate for the Doctor's degree will be required to pass a comprehensive written examination and a second oral examination previous to his oral examination by the special committee appointed by the Committee on Graduate Study.

Teacher's Recommendation.—For the recommendation for the high-school teacher's certificate with Political Science as a major, the applicant should have completed, in a manner satisfactory to the department, at least 40 units in Political Science, including Courses. 1, 2, 3, 15, 117, and 15 units of electives from graduate courses. For a minor, the applicant should have completed 23 units, including Courses 1, 2, and 3.

Library Facilities.—The University Library contains all the important literature in the various fields of political science, and in the allied subjects of economics, law, history, and sociology. The Hoover collection of war documents and publications is particularly rich in material for advanced work in political science. The library also contains complete sets of most of the periodicals devoted to the social sciences and an excellent collection of government documents. The Victor J. West Memorial Library offers primary source material for the study of legislative history and procedure.

Field Work.—California offers a particularly good field in which to study new experiments in government, especially city and county government. The close proximity of the University to a number of cities of varying sizes and different forms of government adds to the opportunities for research in original material.

ELEMENTARY AND GENERAL COURSES

1. Introduction to Political Science.—Fundamental political conceptions: state, government, nature and source of public authority, individual liberty; governmental organization; governmental functions; political parties; international relations. This course, or its equivalent, is prerequisite for all other courses offered by the department. Prerequisite: Completion of the course in Citizenship, or full exemption therefrom.
5 units, autumn quarter (COTTRELL) MTWThF 9
Autumn, 162

2. State and Local Government.—Township, municipal, county, and state government in the United States, with special attention to California. (Open to first-year students by permission.)
5 units, winter quarter (COTTRELL) MTWThF 9
Winter, 96

3. American National Government.—A study of the organization, principles, powers, functions, and practical workings of the national government of the United States.
5 units, autumn quarter (BARCLAY) TWThF 11
Autumn, 45

15. International Relations.—The nature and importance of international relations; underlying problems: nationalism, militarism, imperialism; agencies of control: diplomatic, administrative; development of international organization, culminating with the League of Nations. This course is a desirable prerequisite to other courses in the international field.
5 units, autumn quarter (SPROUT) TWThF 10
5 units, summer quarter (HOLSTI) [June 20–August 13] TWThF 9
Autumn, 125; summer, 97

ADVANCED COURSES

[Not open to students in the Lower Division, or to students who have not credit for Political Science 1, or a satisfactory equivalent.]

100. Contemporary American Politics.—A study of the significant movements and issues in contemporary American politics, including agrarian and labor politics, the programs and tendencies of the major parties, and the relation of parties, public opinion, and economic groups.
5 units, spring quarter (BARCLAY) TWThF 10
Spring, 69

101. Legislatures and Legislation.—Composition, organization, and functions of representative assemblies; theories of representation; legislative procedure for control purposes and lawmaking; direct legislation.
5 units, spring quarter (BARCLAY) TWThF 8
Spring, 57

102. Political Parties.—The political party as a part of the political machinery; party organization; party activities; campaign methods; reform movements; public opinion and party leadership; the true functions of parties; party responsibility. (Desirable prerequisite: Political Science 100.)
5 units, autumn quarter (BARCLAY) TWThF 9
Autumn, 33

103. Principles of Legislation.—A study of statutory forms, drafting, interpretation of statutes, inadequacy of common law remedies, principles of correlation and standardization, and legislative areas.
4 units, winter quarter (THOMPSON) TWThF 8
Winter, 60

110. Administrative Organization.—Principles of administrative organization; relation of executive to other branches; territorial distribution of administrative functions; organization of executive departments; elective versus appointive executives; single versus plural executives; responsibility of administrative officers; administrative reorganization in the United States.
5 units, autumn quarter (COTTRELL) TWThF 11
Autumn, 93

111. Administrative Problems.—Methods of administrative control; the budget; accounting and reporting; purchase and supply; personnel—selection, promotion, and demotion, removal and retirement. (Desirable prerequisite: Political Science 110.)
5 units, winter quarter (COTTRELL) TWThF 11
Winter, 93

112. Municipal Administration.—The special problems of city government; city planning; streets and parks; lighting; water supply; waste disposal; health; police; fire prevention and protection; education; revenue, expenditure, and debt; public utilities. (Desirable prerequisites: Political Science 110 and 111.)
5 units, spring quarter (COTTRELL) TWThF 9
Spring, 78

113. Administration and Justice.—The principles and methods of administrative and judicial organization and procedure for the enforcement of law—the settlement of controversies, and the conviction and punishment for violation of law.
(See Law 282) (WHITTIER)

114. Foreign Service.—Organization and functions of the Department of State; duties of diplomatic and consular officers; diplomatic usage; negotiation, ratification, and termination of treaties. A limited course; students should consult instructor before enrolling.
3 units, spring quarter (SPROUT) TWTh 8
Spring, 20

115. Colonial Administration.—Colonial expansion and its causes; modern imperialistic expansion of European states; the British self-governing dominions and the crown colonies; French, German, Dutch, and American systems of colonial administration; spheres of influence; mandate system. A limited course; students should consult instructor before enrolling.
3 units (SPROUT) [Not given in 1929–30]

116. Comparative Federal Government.—An inquiry into the operation of the federal principle in the United States and other federal states. Concerned chiefly with the "division of powers" and the relationships between central and local governments; emphasis on recent tendencies.
5 units [Not given in 1929–30]

117. Parliamentary Government.—A study of those European governments in which the responsible ministry is the characteristic feature; especial attention to England and France. Emphasis on the relationships between the representative assembly and the executive.
5 units, spring quarter (THOMPSON) TWThF 9
Spring, 32

118. Government in Its Relation to Industry.—The effect on governmental problems caused by changes in business organization since the industrial revolution. The *laissez faire* versus the "general welfare" concept of governmental function. Measures needed to make the general welfare concept effective.

5 units (COTTRELL) [Not given in 1929–30]

119. Methods of Governmental Research.—The purpose of this course is the direction and training of students in methods of collecting and presenting data in governmental fields. Limited to 12 seniors majoring in Political Science or Economics.

5 units, spring quarter (COTTRELL) TWThF 8
Spring, 19

119a. Quantitative Studies in Politics and Administration.—A course designed for (1) those students interested in the problem of methods in the measurement and analysis of political phenomena; and (2) those who desire practice in quantitative treatment of governmental problems. The class studies the elementary statistical methods appropriate for dealing with administrative problems, with special emphasis upon (1) serviceable methods of gathering primary data; (2) tabulation of such data; (3) their presentation in such form that they may be used by the public for intelligent analysis and comparison. Students may choose problems in the fields of their immediate interest.

2 units, summer quarter (FEARING)
[July 29–August 29] TTh 2–5, and one hour by arrangement
Summer, 9

120. Principles and Problems of American Diplomacy.—The cardinal principles of American diplomacy and their application; the problems of neutrality, freedom of the seas, non-intervention, Pan-Americanism, the Monroe Doctrine, and international co-operation in their relation to American foreign policy. Prerequisite: Political Science 15.

5 units, autumn quarter (SPROUT) TWThF 8
Autumn, 40

121. The League of Nations.—Critical study of the Covenant of the League of Nations; the organization and functions of the League government; the various subordinate governing agencies; the mandated areas; the work of the League of Nations. (Desirable prerequisite: Political Science 15.)

5 units, spring quarter (SPROUT) TWThF 10
5 units, summer quarter (HOLSTI) [June 20–August 13] TWThF 11
Spring, 19; summer, 85

122. Introduction to International Law.—Nature and scope of international law; rights and duties of states; jurisdiction; nationality; relations of states in peace and war; international law and the League of Nations. An introductory course designed for the general student.

5 units, winter quarter (SPROUT) TWThF 10
Winter, 43

123. Current International Politics.—A study of the outstanding political problems resulting from the World War; the fulfillment of the peace treaties; the settlement of the allied debts; present international situation in Europe; the foreign policy of the United States in regard to Europe and Latin America.

2 units (ROWELL) [Not given in 1929–30]

124. International Arbitral Procedure.—The formation, jurisdiction, and procedure of arbitral commissions and boards, with special reference to

claims and judgments to which the United States has been a party. Limited to advanced students specializing in international relations.
2 units, autumn quarter (RALSTON) M 2
Autumn, 18

125. Introduction to Public Law.—A study of the fundamental principles of constitutional, administrative, and municipal corporation law. Emphasis is placed upon the problems with which the student of political science is concerned. The subjects covered include limitations upon exercise of power, separation of departments, fundamental guarantees, due process and equal protection, police power, taxation, eminent domain, citizenship, suffrage, jurisdictional powers, governmental and proprietary functions, and control of administrative officers. This course does not displace the department requirement for candidates for advanced degrees who must take the regular courses in public law as given by the School of Law.
5 units, autumn and summer quarters (THOMPSON) TWThF 8
Autumn, 37; summer, 28

126. Public Management.
2 units, autumn, winter, and spring quarters (EDY) M 7:15–9 P.M.
Autumn, 18; winter, 22; spring, 17

127. Political Geography.
3 units, winter quarter
Winter, 39

GRADUATE COURSES

[Open to advanced undergraduates by permission]

201. History of Political Theory.—Development of political thinking from ancient times to the present; Classical period; Medieval period; Renaissance and Reformation; revolution and reaction; the analytical school; the historical school; recent tendencies.
5 units, autumn and summer quarters (THOMPSON) TWThF 10
Autumn, 26; summer, 23

202. American Political Theories.—Development of political thinking in America from colonial times to the present day, including the theories of the Revolution, the Constitution, the Jeffersonian and Jacksonian democracies, the slavery controversy, "states' rights," and modern tendencies.
5 units, spring quarter (THOMPSON) TWThF 11
Spring, 18

203. Contemporary Political Theory.—A detailed study of the leading political ideas since the middle of the nineteenth century with special reference to the various contemporary doctrines regarding the relation of the state to property and labor—socialism, guild socialism, syndicalism, the social catholic movement, etc.
5 units, winter quarter (THOMPSON) TWThF 10
Winter, 42

204. Principles of Politics.—A systematic study of the principles of political science; scope and method of political theory; the nature of the state; the origin and basis of the state; sovereignty; the form of the state; functions of the state.
5 units, summer quarter (THOMPSON) [Not given in 1929–30]

205. The American Constitution.—A consideration of the American federal system, with especial reference to interstate commerce, the powers of Congress, governmental relations between the states and the United States, the constitutional limitations for the protection of life, liberty, and prop-

erty; police power, taxation, and eminent domain. A limited course; students should consult instructor before enrolling.
3 units, winter quarter (BARCLAY) W 7–8:30 P.M.; F 2–3:30
Winter, 14

240. Seminar in Politics.—Topic for 1929–30: Campaign Expenditures.
2 units, winter quarter (BARCLAY) Th 7–9 P.M.
Winter, 7

241. Seminar in Government. — Topic for 1929–30: Governmental Areas.
2 units, spring quarter (COTTRELL) W 2–4
Spring, 14

242. Seminar in International Relations.—Topic for 1929–30: Problem to be selected.
2 units, spring quarter (SPROUT) W 7:30–9 P.M.
Spring, 11

243. Seminar in Theory.
2 units, winter quarter (THOMPSON) M 7:30–9 P.M.
Winter, 7

250. Graduate Seminar.—For candidates for higher degrees.
Winter quarter (DEPARTMENT FACULTY) Th 7:30–9 P.M.
Winter, 9

251. Special Problems.—Assigned for independent research and report.
Autumn, winter, spring, and summer quarters (DEPARTMENT FACULTY)
Autumn, 3; winter, 9; spring, 18; summer, 8 By arrangement

The School of Law offers the following courses in public law for graduate students:

[**Constitutional Law.**—Law 271 and 272.]

[**Municipal Corporations.**—Law 274.]

[**Public International Law.**—Law 270.]

[**Administrative Law.**—Law 276]

[**Problems in Administrative Law.**—Law 280.]

[**Problems in Administration of Civil Justice.**—Law 282.]

[**Problems in Administration of Criminal Justice.**—Law 283.]

The following courses offered by other departments deal very largely with subjects comprised in the field of political science:

[**Public Finance.**—Economics 110.]

[**Taxation.**—Economics 111.]

[**English Literature and Political Thought.**—English 193.]

[**The Utopian Theme.**—English 197.]

[**British Constitutional History.**—History 158.]

[**Tropical Colonization in the Far East.**—History 167.]

[**Government of Japan.**—History 170.]

[**Military Law and Administration.**—Military Science 106.]

[**Social Order and the Individual.**—Philosophy 130.]

[**Social Psychology.**—Psychology 158.]

PSYCHOLOGY

Frank Angell, Lillien Jane Martin, Professors Emeritus

Lewis Madison Terman, Truman Lee Kelley, Walter Richard Miles, Calvin Perry Stone, Edward Kellogg Strong, Jr., Professors

John Edgar Coover, Associate Professor, and Research Fellow in Psychical Research

Heinrich Klüver, Acting Associate Professor (Summer Quarter)

Paul Randolph Farnsworth, Maud Amanda Merrill, Assistant Professors

Catharine Cox Miles, Barbara Burks Ramsperger, Research Associates

H. Birnet Hovey, E. Lowell Kelly, Quinn McNemar, Barbara Ann Mayer, Melita H. Oden, Floyd Leon Ruch, Ruth Haines Thomson, Albert Walton, Special Research Assistants

Helen Marshall, Instructor (Assigned to School of Medicine)

Harry Israel, Henry Royer Thompson, Assistants in Instruction

Helen Louise Campbell, Research Fellow on the Buckel Foundation

Keith Sward, Social Science Research Council Fellow

The courses offered by the Department of Psychology are planned to meet the needs of three groups of students: (1) undergraduate majors in psychology; (2) candidates for the degrees of Master of Arts and Doctor of Philosophy with major or minor in psychology; (3) students who desire a general knowledge of psychology and of its applications.

Degrees of Bachelor of Arts and Master of Arts.—For the Bachelor's degree, 45 units of psychology are required, including the following courses: 51, 55, and 60 or Education 185. It is recommended that students in the Lower Division who plan to major in psychology should take a laboratory science in the freshman year, preferably physics, biology, or physiology. Majors in psychology will ordinarily be expected to take additional courses in science before graduation. The work in psychology should be begun in the sophomore year with Courses 51 and 55. Before the beginning of the junior year students are also expected to take Mathematics 41, 42, and 43, or the equivalent.

For the degree of Master of Arts, 45 units of university work are required, including 30 units of psychology in addition to the Bachelor's requirements. Of the 30 units required, 9 to 12 are ordinarily devoted to thesis. Only students whose undergraduate work has been considerably above average quality will be accepted as candidates for the Master's degree in psychology.

Degree of Doctor of Philosophy.—The minimum residence requirement is three years beyond the Bachelor's degree, of which at least one year must be spent at Stanford. Although extensive course work, or its equivalent in independent study, is required, demonstrated ability to do original research is regarded as the most important criterion of fitness for this degree.

Candidates for the Doctor's degree with a major or minor in Psychology are urged to complete their work by the age of thirty-five years. Candidates above the age of forty years will ordinarily not be accepted.

Besides acquiring a fairly broad mastery of the general field of psychology, candidates for the Doctorate will be expected to do intensive work in one or more of the following lines: (1) Experimental Psychology (including animal behavior); (2) Educational Psychology (including tests and measurements); (3) Industrial Psychology. A command of statistical methods and a good reading knowledge of French and German should be acquired as early in the student's course as possible. Candidates whose major is in Experimental Psychology will be expected to take a minor or considerable work in one or more of the following sciences: biology, physiology, neurology, physics, or chemistry; those who major in Educational Psychology will ordinarily take a minor in education or in one of the biological sciences; those who major in Industrial Psychology will ordinarily take a minor in business administration, economics, education, or the social sciences.

Minor Requirements for Degree of Doctor of Philosophy.—Candidates for the degree of Doctor of Philosophy in other departments who elect a minor in Psychology will be expected to complete the equivalent of 45 units of Psychology, of which approximately half shall be of graduate character. The required work is laid out for the candidate in terms of fields to be covered, rather than in terms of courses, and a large measure of freedom is allowed in respect to the manner in which the requirements may be met. (See age limit mentioned above.)

Major for the Teacher's Certificate.—The department offers a major in Psychology for the Teacher's Certificate, but does not offer a teaching minor, The requirement for teaching major is the same as that for the Bachelor's degree in Psychology; viz., 45 units.

Library.—The sum of $600 a year from the Thomas Welton Stanford Fund has been set aside for the purchase of psychological books and periodicals.

Fellowships and Assistantships.—The Dr. C. Annette Buckel Foundation, supplemented by additional support from the Board of Trustees of the University, has provided a research fellowship for the psychology and pedagogy of backward children. A research assistantship for the study of gifted children has also been provided. There are two teaching assistantships in general and experimental psychology, and a research assistantship in animal psychology. Usually two or three other research assistantships are available in connection with special investigations.

Reagents.—A special point is made of trying to provide research students with suitable reagents. Accordingly, all advanced students are expected, when possible, to give a certain amount of time to this purpose.

Laboratory and syllabus fees.—A laboratory fee of $5.00 per quarter is charged for Courses 55 and 131. For courses 135, 188, 189, 203, 210, and 245 the fee is $2.50 each. For certain other courses a syllabus fee of 50 cents to $2.00 is charged.

LABORATORIES

Aside from lecture and seminar rooms, offices, and library, the department has well-equipped laboratories comprising some thirty rooms which are adapted to research and laboratory course work, as follows:

1. *General and Experimental Psychology.*—These rooms are located mainly on the second floor of the Physics-Psychology Building. Aside from

the usual equipment there is special apparatus for the photographic study of eye-movements in perception and reading; a string galvanometer outfit (large American model); respiration and metabolism apparatus; an electrical pursuitmeter; several pieces for studying motor co-ordinations and skills. The department faculty will assist competent students in the development of special research apparatus.

2. *Animal Psychology.*—A large amount of space on the third floor of the building is devoted to experimentation with animals. This laboratory is well supplied with various kinds of material including rats, guinea pigs, rabbits, monkeys, and sometimes other species as occasion demands. The laboratory has considerable equipment in problem boxes, mazes, and discrimination apparatus.

3. *Psychic Research.*—On the third floor Professor Coover has laboratory rooms in which experiments in the field of psychic phenomena are conducted from time to time.

4. *Statistics.*—Two rooms are equipped with computing machines and are used particularly by research associates and assistants who are conducting investigations in the general fields of mental tests and individual differences.

COURSES OF INSTRUCTION

51. General Psychology.—Survey of the field of mental life. The point of view, methods, and the experimentally attested facts of the science are presented. The primary emphasis is on normal adult psychology and applications to control of human behavior. Animal and abnormal fields are also outlined. Lectures, demonstrations, and exercises. Freshmen, seniors, and graduates may enroll only by special arrangement. Extra work is required of seniors and graduates. Enrollment limited.

5 units, autumn, *winter, and *summer quarters
autumn (MILES); winter (FARNSWORTH); summer (WALTON) MTWThF 11
Autumn, 209; winter, 145; summer, 53

54. Introduction to the Photoplay and Psychology of Art.—History of the development and conventions of the photoplay. Aesthetic and social problems connected with motion pictures. Consideration of experimental literature of art principles, and a survey of art tests. No prerequisites.

4 units, autumn quarter (FARNSWORTH). MTThF 9
Autumn, 27

55. Experimental Psychology.—An elementary laboratory course dealing entirely with human psychology.

55a. Application of experimental method to collection and treatment of psychological data. Drill in technique of scientific observation, and use of laboratory controls. Selected experiments and demonstration of apparatus. Planned to meet the needs both of general students and of students of educational psychology.

4 units, winter and *summer quarters (FARNSWORTH, MILES) MWF 1:05–4:05
Winter, 32; summer, 8

55b. Either of two lines of work can be undertaken:

1. Continuation of experiments but with more complicated apparatus.
2. Detailed analysis of a single problem.

4 units, spring quarter (FARNSWORTH) MWF 1:05–4:05
Spring, 21

60. Introduction to Statistical Methods.—A demonstration and working course in statistical methods. Data resulting from "chance causes" are secured in a class experiment and are subjected to a complete statistical treatment, including: the determination and evaluation of measures of central tendency, dispersion, precision, reliability, and differences between means and between distributions; seriation and plotting, curve-fitting, correlation. Theory is discussed in connection with practice. Students provide Kelley's or Rugg's text and a polyphase duplex slide rule (with a B scale). Calculating machines and mathematical tables are available. Some knowledge of algebra is a prerequisite. Education 185 may be substituted for this coruse.
5 units, spring quarter (COOVER) MTWThF 10
Spring, 21

90. History of Psychical Research.—Lecture course. A canvas of opinion on psychic phenomena is made from the daily press, from the popular magazines, and from professional literature; a detailed study of the more important investigations by psychical researchers is made; canons of evidence and of experimental method are adduced, and the present status of the various psychic phenomena is defined. The psychology of testimony and the nature of scientific proof are considered in connection with the cases of research chosen for study. Assigned reading, class reports. Prerequisite: Course 51 or a laboratory course in science.
3 units (COOVER) [Not given in 1929–30]

101. Principles of Psychology.—Introduction to psychological concepts and methods of experimentation, with special emphasis upon learning, retention, and individual differences. Applications are made to efficiency in industry, selection and training of employees, reliability of testimony, etc. Registration restricted to students in the Graduate School of Business and the School of Engineering.
3 units, winter quarter (STRONG) MWF 9
Winter, 28

110. Perception and Attention.—The characteristics of receptor mechanisms present in human adults are considered. Space, form, motion, and time perceptions are analyzed. Consideration is given to illusions, testimony and report. The contributions of gestalt psychology are reviewed. Lectures, demonstrations, and class reports. Prerequisite: Course 51.
3 units, autumn quarter (MILES) MWF 9
Autumn, 6

115. Memory and Thought.—The general problem is the retention and use of mental experience. A survey is made of the experimental work on memory, imagination, and the thought processes. Attention is given to such topics as retroactive inhibition, motor learning, memory systems, feats of memory, types of memory, and eidetic imagery. Lectures and class reports. Written reports are required. Prerequisite: Course 51.
3 units, autumn quarter (MILES) [Not given in 1929–30]

130. Animal Behavior.—A survey of the experimental studies of animal behavior. Instinct, habit, imitation, retention, transfer of training, etc., receive detailed consideration. Lectures, demonstrations, recitations, and class reports. Prerequisite: Course 51 or its equivalent.
4 units, autumn quarter (STONE) MWF 10
Autumn, 21

131. Animal Behavior.—A laboratory course dealing with vertebrate animal responses in controlled situations. Investigations leading to theses may be

undertaken in this course and continued in subsequent quarters until completed. Prerequisite: Course 130.
Winter quarter (STONE) By arrangement
Winter, 2

132. Topics in Comparative Psychology.—Extensive readings and typewritten reports based upon the experimental literature. Open only to seniors or graduate students prepared to do independent work. Prerequisite: Course 130.
1 or 2 units, winter quarter (STONE) By arrangement
Winter, 2

135. Physiological Psychology, Elementary.—Introduction to the structural foundations of animal and human behavior, with special emphasis on the nervous system and sense organs. For majors in Psychology. Class limited to ten students.
3 units, spring quarter (STONE) TTh 1:05–4:05
Spring, 5

140. Psychophysical Methods.—A seminar course. Brief review of the development of psychophysical methods; systematic presentation and study of both experimental and mathematical procedures; study of the recognized sources of error in psychological experiments and means of eliminating or measuring them; application of the standard Phi Gamma methods, using Urban's tables, to typical data, usually obtained by the student in his current laboratory work; discussion of the "psychometric function." Titchener's *Quantitative Manual,* Brown and Thompson's *Essentials of Mental Measurement,* and the professional journals are used for reference. A one-unit individual report is required. Prerequisites: Courses 51, 55, and 60 or Education 185.
3 units, winter quarter (COOVER) [Not given in 1929–30]

153. Psychology of Music.—Résumé of music tests. Survey of some of the art principles underlying music. Lectures, discussion, reports. Prerequisites: Course 51 and interest in music.
4 units (FARNSWORTH) [Not given in 1929–30]

158. Social Psychology.—Social stimulation and response. Special attention to the relation of psychology to the social sciences. Lectures, discussion, reports. Prerequisite: Course 51.
3 units, spring quarter (FARNSWORTH) MWF 10
Spring, 57

160. Abnormal Psychology.—The symptomatology of nervous and mental diseases; institutional care and treatment of the insane; and the application of psychological aids in the diagnosis and treatment of mental disorders. Lectures, recitations, clinics, and class reports. Prerequisite: Course 51 or its equivalent.
4 units, autumn quarter (STONE) MTThF 9
Autumn, 76

161. Freudian Psychology.—A survey of the psychoanalytic movement in psychopathology, the techniques of psychoanalysis, and the uses of psychotherapy in education, hygiene, psychology, and medicine. Prerequisite: Course 160 or its equivalent.
3 units, winter quarter (STONE) MWF 9
Winter, 41

170. Mental Deficiency and Delinquency.—A study of mental retardation and its relation to delinquency. Mental traits of the feebleminded; heredity; classification; psychological diagnosis. Prerequisite: Course 51.
3 units, spring quarter (MERRILL) MWF 9
Spring, 45

173. Psychology and Treatment of Exceptional Children.—A study of bright and dull children. Prerequisite: Course 51.
3 units, summer quarter (MERRILL) MWF 9
Summer, 20

175. Psychical Research.—A library research course leading to a typewritten report on any phase of psychical research of special interest to the student. The more authoritative sources are examined by the student. This course may be preparatory to research. No prerequisites; permission to register required.
Autumn, winter, and spring quarters (COOVER) By arrangement
Autumn, 10; winter, 22; spring, 17

180. Psychical Research.—A research course offering opportunity for experimental attack upon problems in the field of psychical research for which the laboratory equipment is adequate. Registration by permission.
Autumn, winter, and spring quarters (COOVER) [Not given in 1929–30]

185. Elementary Statistical Methods.—A study is made of the various kinds of statistical series and the properties of each. The purpose of the first part of the course is to discover what constitutes the significant features of a body of data. Opportunity to obtain practice in the computation of the important constants of distributions is given; also in the use of calculating machines and other aids to computation. The approach is inductive, starting with measures and having as its object the discovery of the statistical resources which are available for making data reveal their story. Psychology 60 may be substituted for this course.
4 units, autumn and *summer quarters (EELLS) MTThF 8
Autumn, 59; summer, 57

188. Mental Tests.—An introductory course dealing with the principles and applications of intelligence tests and of methods of testing personality and character traits. Lectures and demonstrations. Prerequisite: General Psychology. A course in statistical method must accompany or precede.
4 units, summer quarter (MERRILL) MTWTh 11
Summer, 19

189. Intelligence Tests.—An introductory course dealing with the history and principles of mental measurement and with the technique of intelligence testing, with emphasis upon Binet procedure. Prerequisites: Courses 51, and 60 or Education 185.
4 units, winter quarter (MERRILL) MTWTh 11
Winter, 24

197. Modern Viewpoints in Psychology.—General survey of the viewpoints represented in writings of present-day psychologists. Lectures, discussion, and special reports. Prerequisite: 12 units of Psychology, or Philosophy 10 and 8 units of Psychology.
4 units, autumn quarter (FARNSWORTH) MTThF 10
Autumn, 23

199. Reading and Special.—For undergraduates who are working on the Independent Study Plan or doing other kinds of special work.
(DEPARTMENT FACULTY) By arrangement
Autumn, 12 (5 groups); winter, 21 (10 groups); spring, 14 (5 groups); summer, 3

201. Personality Types.
3 units, summer quarter (KLÜVER) MWF 8
Summer, 15

202. History of Psychology.—A survey of modern psychology and of the development of psychology from ancient to modern times. The various points of view which have been held regarding the mental life are considered, to-

gether with the outstanding men and publications. Lectures and class reports. A written report is required. Open to qualified graduates and to senior majors.

3 units, winter quarter (MILES) [Not given in 1929–30]

203. Experimental Psychology, Advanced.—Laboratory work with human subjects covering a variety of topics, including complex qualitative problems and quantitative investigations. The course is designed to acquaint students with psychological apparatus, instruments, and means of measurement as well as to provide a first-hand opportunity for them to perform some experiments rather intensively. One lecture or conference with prescribed readings and two three-hour laboratory periods. Prerequisites: Psychology 51 and 55; Course 60 or Education 185 must accompany or precede.

3 units, winter quarter (MILES) MW 1:05–4:05, F 2:05–3:05
Winter, 4

204. Physiological Psychology of Emotion.—Consideration is given to those approaches and experimental studies that have undertaken to demonstate the bodily accompaniments of emotional states. The techniques for registering blood pressure and other circulatory changes are reviewed along with the evidence from phenomena of respiration, muscle tonus, and the reflexes. The use of the association test as an indicator of complexes and as used in the analysis of personality is discussed, along with the emotion techniques for detecting guilt. Lectures, demonstrations, class reports, and a written report. Open to qualified graduates and to senior majors.

3 units, winter quarter (MILES) MWF 9
Winter, 8

205. Physiological Psychology of Action.—In general the conditions favoring and hindering mental and physical work are studied. Metabolic level, food, appetite, fasting, physical and mental fitness, sleep, fatigue, altitude and climatology, ventilation, drugs, and old age are some of the topics considered. The relation of these problems to industrial efficiency is examined. Lectures, demonstrations, class reports, and a written report. Open to qualified graduates and to senior majors.

3 units, spring quarter (MILES) [Not given in 1929–30]

206. Psychology of Reading and Language.—The various investigations that have been made on the eye movements during reading are critically reviewed. An equipment for the photographic recording of eye movements is used in the work of the class, and the processes of obtaining meaning from the printed page and of expressing meaning in symbols are studied. Lectures, experiments, and written report. Open to qualified graduates.

3 units, summer quarter (MILES) MWF 9
Summer, 8

210. The Learning Process.—A laboratory course providing the data and the opportunity for a qualitative and quantitative study of the development of efficiency in various learning situations involving different levels of complexity in materials and mental processes. Special attention to the statistical treatment of results and to graphic presentation, analysis of processes, and the morphology of skill. One-hour seminar for discussion and reports of reading, and two laboratory periods weekly. Prerequisites: Courses 51 and 55.

3 units, autumn quarter (COOVER) Seminar F 1:05; Lab. MW 1:05–4:05
Autumn, 3

215. Advanced Human Psychology.

4 units, summer quarter (KLÜVER) MTWTh 11
Summer, 10

220. The Psychology of Motives.—Critical study of the dynamic and purposive aspects of instinctive and emotional dispositions as they are related to conduct; review of experimental investigations of animal and human motivation. Prerequisites: Courses 130 and 160 (or admission by special permission).

3 units, spring quarter (STONE) MWF 9
Spring, 7

225. Educational Psychology, Advanced.—Original endowment; mental development; individual differences in relation to heredity, sex, and environment; learning, formal discipline, work and fatigue, with special reference to the school program. Independent study, discussion, and class reports. Prerequisites: Courses 51, 55 or Education 165, and Course 60 or Education 185.

3 units, autumn, winter, and spring quarters (TERMAN) MWF 11
Autumn, 13; winter, 14; spring, 10

230. Association of Ideas.—A seminar. The purpose is to clarify the student's conceptions of the ways in which mental elements are connected or combined or fused. Topics covered include the English "school" of association psychology and its dominance of popular psychology today; results of laboratory research; modern formulations from experimental results; importance to psychology; bearing upon learning and school practice. Assigned reading, reports, discussion, and a one-unit individual typewritten report. Registration by permission.

3 units, autumn and *summer quarters (COOVER, KLÜVER) Th 7:30–9:30 P.M.
Autumn, 1; summer, 3

231. Method of Experiment.—A seminar. An examination of scientific method and its applications to various types of research in experimental psychology; a study of typical researches; applications to present problems; inspection of statistical procedures appropriate to the various types of experimental procedures; consideration of criteria of validity of results. A one-unit typed report is required. Prerequisites: Courses 55, and 60 or Education 185. Registration by permission.

3 units, winter quarter (COOVER) Th 7:30–9:30 P.M.
Winter, 1

235. Psychological Analysis of Biographies.

3 units (TERMAN) [Not given in 1929–30]

240. Advanced Statistical Methods.—This is a continuation of Education 185 and deals primarily with series of related measures. The statistical methods of analysis of correlated data and the means of combining several measures into total scores are treated. Education 185, Psychology 60, or other equivalent course is a prerequisite.

4 units, winter and *summer quarters (KELLEY) MTThF 8
Winter, 19; summer, 11

241. Advanced Statistical Methods.—This course is a continuation of Course 240. It deals especially with problems in multiple correlation and with the statistical treatment of known linear, skew, and categorical data. Course 240 is a prerequisite. Course alternates with 315.

4 units, spring quarter (KELLEY) MTThF 8
Spring, 4

244. Interpretation and Construction of Mental and Educational Tests and Measurements.—This is a continuation of Education 186, dealing in the main with the interpretation of test scores in a diagnostic manner. Methods for the utilization of various measures in educational and vocational guidance programs are indicated. Some attention is given to the

methods of construction of educational tests. Education 185, 186, and 189, or equivalents are presupposed.
2 units, *summer quarter (KELLEY) MF 10
Summer, 18

245. Mental Test Practice.—The selection and use of mental tests, with laboratory practice and field work. Important types of tests are subjected to experiment and critically evaluated. Prerequisites: Courses 60 (or Education 185), 188 or 189, and one laboratory course.
4 units, spring quarter (MERRILL) MTWTh 1:05–3:05
Spring, 12

247. Psychological Clinic.—Field work in juvenile court, mental hygiene clinic, and public school.
Winter and summer quarters (MERRILL) By arrangement
Winter, 2; summer, 2

250. Experimental Problems.—A provision for individual laboratory study of some minor problem proposed by the student or suggested by the instructor. A minimum of eight hours per week in the laboratory and a typewritten report are required.
2 units, autumn and winter quarters (MILES) By arrangement
Autumn, 2; winter, 2

255. Mind and Body.—A seminar course. The problem of the mind-body relationship is first given a brief historical consideration. The psychological postulate of "psychophysical parallelism" is critically examined. The pertinant data of psychology, pathopsychology, and medical practice with mental disorders (including the aphasias) are collected and studied. The phenomena of hypnotism and the dissociation of personality are reviewed, and Freudian psychoanalysis is briefly but critically examined from the standpoint of physiological psychology. A one-unit individual typed report is required. Prerequisite: Course 51.
5 units, spring quarter (COOVER) MTh 1:05–3:05
Spring, 8

260. Seminar in Applied Psychology.—Special problems in application of psychology to advertising, selling, vocational guidance, and personnel management. Seminar discussion will be restricted to vocational guidance and personality measurement. Registration by permission.
Autumn, winter, and spring quarters (STRONG) By arrangement
Autumn, 4; winter, 5; spring, 7

319. Seminar.—Research reports and current literature in educational psychology and mental tests. Registration by permission.
1 unit, autumn, winter, and spring quarters (TERMAN) W 7:30–10 P.M.
Autumn, 16; winter, 13; spring, 11

321. Current Literature of Experimental Psychology.
1 unit, spring quarter (MILES) [Not given in 1929–30]

322. Mental Development.—Seminar and problem course. A critical survey of the most important studies of infancy, childhood, adolescence, and senescence. Intended primarily for major students in psychology or education who are in the second or third year of graduate work. Alternates with Course 323.
2 units, autumn, winter, and spring quarters (TERMAN) TTh 11
Autumn, 12; winter, 18; spring, 15

323. Psychology of Endowment.—A seminar and thesis course. Tests of general intelligence, special abilities, character and personality; the psychology of genius; mental inheritance; race differences, etc. Intended primarily for major students of psychology or education who are in the second or third year of graduate work. Alternates with Course 322.
2 units, autumn, winter, and spring quarters (TERMAN) [Not given in 1929–30]

324. Mental Test Problems.—For qualified students who wish to undertake an experimental problem of limited scope.
2 or 3 units, autumn, winter, and spring quarters (TERMAN, MERRILL) By arrangement
Autumn, 2; winter, 2; spring, 3

325. Psychometry.—Essentially a research course. Attention is given to the analysis of mentality; to the measurement of interest; of special sensory capacity; and of certain specific habits and skills. The bearing upon problems of guidance is stressed. Education 240 and 244, or equivalent, are presupposed. Course alternates with 241.
4 units (KELLEY) [Not given in 1929–30]

335. The Thesis for the Doctorate.—Students in Education or other departments working upon Ph.D. dissertations, and students in Education working upon Ed.D. dissertations, who desire assistance in connection with the definition and handling of statistical problems may enroll in this course upon approval of the instructor. The work is individual and is adapted to the student's special problems. Each student is called upon to make a report each quarter upon the progress of his investigation. This course is intended for the special help of Ph.D. or Ed.D. students in Education, or Ph.D. students in other departments whose theses involve statistical procedure, and is not intended to take the place of registration for research work with individual professors.
2 units, winter and spring quarters (KELLEY, ALMACK) W 9–11
2 units, *summer quarter (KELLEY) TTh 10
Winter, 3; spring, 3; summer, 8

340. Research and Special.
(DEPARTMENT FACULTY) By arrangement
Autumn, 10 (5 groups); winter, 11 (5 groups); spring, 8 (5 groups); summer, 2

SOCIOLOGY

WALTER GREENWOOD BEACH, Professor of Social Science
CLARENCE MARSH CASE (University of Southern California), Acting Professor (Summer Quarter)
CHARLES NATHAN REYNOLDS, Associate Professor
RICHARD TRACY LAPIERE, Instructor

Students may major in the Division of Sociology within the Department of Economics, or simply within the School of Social Sciences. Those who wish to major in this division within the Department of Economics must add to the courses required by the department for Economics majors Course 2 (Elements of Sociology) and Course 101 (Labor Problems). They are urged also to include in their curriculum courses in psychology, ethics, and statistics. Students in the Division of Sociology of the School of Social Sciences, in addition to meeting the requirements of the School of Social Sciences, must take at least thirty units in Sociology.

Advanced Degrees.—Candidates for higher degrees may choose Sociology as a major or minor. The following may be considered as fields of study within Sociology as a whole:

1. Sociological Theory and Its Development
2. Social Psychology and Its Applications, including Race Relations
3. Social Economy and Social Legislation; Standards of Living
4. Social Pathology: Crime, Poverty, Dependency, Physical and Mental Weakness
5. Geographic Basis of Society
6. Biologic Aspects of Society, and Eugenics
7. Social Evolution and the Study of Institutions: Family, Industry, Religion
8. Population, Immigration
9. Urban and Rural Sociology

It is not expected that candidates should be equally prepared in all of these fields, selection and emphasis being dictated by interests and previous preparation; but an acquaintance with the first mentioned (number one) is expected in all cases.

Medical Social Work.—Opportunity for full-time training in Medical Social Work is available at the Stanford University Clinics in San Francisco under the supervision of the Director of Social Service. Opportunity will be given for experience in connection with the Children's Clinic, Women's Clinic, and the General Medical Clinics, as well as with the hospital.

Courses.—The courses offered in this Division are listed under the Department of Economics (page 416).

MUSEUM AND ART GALLERY

LELAND STANFORD JUNIOR MUSEUM

PEDRO J. LEMOS, *Director*

In 1880, Leland Stanford, Jr., then eleven years of age, accompanied his parents on a trip through Europe, collecting numerous mementos of the places visited. In 1883, on a second visit, he began to pursue this object more ambitiously, and finally with the idea of establishing a museum. The Leland Stanford Junior Museum was designed by Mrs. Stanford as a memorial to perpetuate this idea, and the various collections are largely her gift to the Museum.

The collection made by Leland Stanford, Jr., between 1880 and 1884 has been placed in two rooms, and in one room his own arrangement is reproduced in a case; in the other room are found mementos of his early life. These two rooms contain especially Egyptian bronzes, Tangara figurines, Greek and Roman glass, armor, mosaics, Sèvres and Dresden ware, and the like.

The Stanford Memorial Room contains collections of personal belongings pertaining to the founders of the University. Added to these are collections connected with the early days of the University, views of buildings in construction, and details of the mosaics used in the Memorial Church.

Another room contains the famous historical relic, "The Governor Stanford," the first locomotive used on the Central Pacific Railroad, in 1864. A group of cases in this room contain collections related to early California history. The center case contains practically all the implements extant of the old Mission Dolores, presented by Don Pablo Vasquez, whose father was the last major-domo of the Mission. Included in the Mission Collection are some extremely rare relics of Father Junipero Serra and of the Carmel and Santa Barbara Missions.

The Di Cesnola Collection contains Greek and Roman pottery and glass from the Island of Cyprus.

The American Indian Collection is made up of mound relics, Indian baskets, Indian Pueblo pottery, utensils, Alaskan canoes, totem poles, etc. There is also a display of material of the Stone Age purchased by Mrs. Stanford in Denmark.

The Ikeda Chinese and Japanese Collection, purchased by Mrs. Stanford in 1904, comprises rare art material from the Orient.

In the Chinese and Japanese Room there is exhibited a collection of bronzes, arms, china, lacquer, cabinets, musical instruments, rich embroideries, and specimens of wood-carving; also the famous De Long Collection of Japanese rarities.

The Japanese Collection, purchased by Mrs. Stanford in 1902, consists of cloisonné, Satsuma, porcelain, embroideries, Buddhistic images, and ivory carvings, and includes a large bronze Koro, over 150 years old. The Corean Collection, the gift of Mr. Timothy Hopkins, contains costumes, household goods, cabinets, screens, etc. Ceramics collected by Mrs. Stanford include Sèvres, Dresden, Royal Berlin, Persian, Pompadour crystal, Bohemian, and numerous other wares.

The Egyptian Room contains: Egyptian stone carvings, alabaster canopics or jars, bronze, wooden, terra-cotta, and glazed statuettes, images,

mummies, scarabs, and numberless other emblems, hand-woven linen and Coptic textile color designs, and original portrait paintings taken from mummy cases. This Egyptian material was collected for Mrs. Stanford by the Curator of the Cairo Museum, Emile Brusch Bey, and experted by Dr. Sayce, the noted Egyptologist. This room also contains a case displaying a collection of very old and rare Babylonian tablets.

The upper floor of the Museum contains a large collection of paintings collected by Mr. and Mrs. Stanford, and includes original paintings of each member of the family, by such artists as Messionier and Bonnat, also original paintings by Benjamin West, Gustave Richter, William Keith, and Thomas Hill.

THOMAS WELTON STANFORD ART GALLERY

PEDRO J. LEMOS, *Director*

The Thomas Welton Stanford Art Gallery is composed of four galleries designed for the exhibition of paintings and other works of art.

In the main galleries the collection of paintings donated by Thomas Welton Stanford is placed. Among these are pictures by Minderhout Hobbema, James Giles (R.S.A.), John Frederick Herring, Lienur, Van der Houten, Francis Snyders, W. J. Laidley, David Bates, John Yarley, Julian M. Price, J. W. Ready, William Melby, James E. Meadows, Elijah Walton (F.G.S.), W. Henry, E. Wake Cook, T. R. Miles, Sr., John Glover, Herr Schnars-Alquist, Louis Buvelot, William Hart, William Shiels (R.S.A.), S. Bird, Patrick Nasmyth, Emil Bayard, Gerard Lairesse, C. Wimmer, Salvator Rosa, G. Koken, John Weenix, Bachman, Kobell, Jr., Charles Stuart, Heinrich Rasch, Melchor Hondecooter, Marie Angelica Kaufman, George Earl, G. Guardabassi, E. G. Lewis, and J. W. Curtis.

Two galleries have been planned for the exhibition of collections of paintings, etchings, and sculpture from eastern and foreign art centers. These exhibitions are announced from time to time as they are received.

LECTURES AND DEBATES

RAYMOND FRED WEST MEMORIAL LECTURES

In 1910 Mr. and Mrs. Fred West, of Seattle, Washington, presented to the University, in memory of their son, Raymond Fred West, a student of the University who died before the completion of his college course, the sum of ten thousand dollars, to be held as a fund in perpetual trust, for the establishment of a lectureship on a plan similar to the Dudleian Lectures at Harvard University.

"It is our wish that such lectures shall not form part of the usual college or university course, nor shall they be delivered by any professor or instructor in active service in the institution. Such lecturer may be a clergyman or a layman, a member of any ecclesiastical organization, or of none, but he should be a man of the highest personal character and of superior intellectual endowment. He shall be chosen by the Faculty and the Board of Trustees of said University in such manner as the said Board of Trustees may determine, but the appointment in any case shall be made at least six months before the delivery of said lectures. . . . . The course of lectures shall be known as the 'Raymond Fred West Memorial Lectures on Immortality, Human Conduct, and Human Destiny.'"

The following general plan has been adopted by the University: The lectures are to be delivered in alternate years; the lecturer is to give at least three lectures; the lectures are to be published in book form within two years after delivery, the lecturer to have the option of publishing them himself, in which case the University will purchase a hundred copies, or of having the University publish them, in which case it will retain the copyright (in any case the manuscript of the lecturer is to be filed in the University archives); the honorarium to be decided in each case by the Board of Trustees, and unless otherwise ordered the entire earnings of the fund for the two years to be devoted to honorariums and to the purpose of publication; the lecturer is to be nominated by the President with the approval of the Advisory Board and the consent and ratification of the Board of Trustees.

These lectures have been given by Charles Edward Jefferson, Samuel McChord Crothers, Hastings Rashdall, Charles Lewis Slattery, John Dewey, Henry Osborn Taylor, Irving Babbitt, Arthur Twining Hadley, Hugh Black, and G. A. Johnston Ross. The general subject of the last series given April 1, 2, and 3, 1930, was "Behavior and Destiny: A Christian View." The titles of the lectures were "The Christian Preface to Morals," "Christian Conduct," and "The Christian and His Future."

DEBATES

Intercollegiate debates in which Stanford students participate are conducted under the auspices of the Associated Students of the University. Except where otherwise indicated, all debates recorded herewith were non-decision.

STANFORD-OXFORD DEBATE

The second Stanford-Oxford University debate was held on November 12 in a packed Assembly Hall. Stanford had the affirmative of the question,

"Resolved: That This Is the Best of All Possible Worlds." Lawrence Kimpton, Henry Harris, Jr., and Robert M. McClintock opposed Bernard Joseph Maxim McKenna, William John Kenneth Diplock, and Richard Thomas Dyke Acland, of Oxford.

CALIFORNIA-TRIANGULAR DEBATE

On November 26, Daniel Bryant and Irving Rosenblatt on the affirmative debated California at Stanford, and Pardee Lowe and John C. McClintock on the negative debated University of Southern California at Los Angeles on the question, "Resolved: That Modern Science Tends to Destroy Theistic Faith."

DISARMAMENT DEBATES

January 15, Edmund Jones, Isador Botasof, and Abe Mellinkoff, representing the negative, met a College of the Pacific team at Stockton on the question, "Resolved: That the Nations Should Adopt a Plan of Complete Disarmament Excepting Such Forces as Are Needed for Police Purposes." In a return debate on March 5, James Robb, James Bednar, and Harold Dickson upheld the affirmative side of the question for Stanford. In San Francisco on February 17, Bromley K. Smith, and Arthur D. Angel debated the affirmative of this question with representatives of St. Ignatius College. Upholding the negative, John Gange and Harry Logan debated a team from Weber College on March 10, and John Gange and Abe Mellinkoff met a team from the College of Puget Sound on April 14.

"EDUCATION" DEBATES

On February 12, Stanford entertained a visiting team from the University of Hawaii, debating with them the question, "Resolved: That the English Criticism of American Education Is Justified." Wadieh Shibley, George Bodle, and Norman Tyre upheld the affirmative for Stanford. Stanford again supported this motion when Glenn Rusk and Howard Conn met a University of Washington visiting team on April 3.

STANFORD-DENVER DEBATE

"Resolved: That the Foreign Criticism of American Culture Is Justified" was the question of the debate with Denver University on April 8. Edwin Gerhardt, Isador Botasof, and James Bednar represented Stanford in a split-team debate.

JOFFRE DEBATE

On April 16, at Berkeley, occurred the annual Joffre Medal Debate, which was won by John Reynolds, a California senior. John McClintock, Irving Rosenblatt, and Pardee Lowe, all of Stanford, placed second, third, and fourth, respectively. The general question was "France and Disarmament." The specific question chosen by Professor Charles E. Martin, of the University of Washington, and announced two hours before the debate, was "Resolved: That France's Present International Commitments Furnish an Adequate Basis for an Effective Reduction of Armaments without Further Safeguard." The affirmative was taken by Reynolds and Rosenblatt; the negative by McClintock, Lowe, Edises, and Breyer.

CHINESE DEBATE

Former Harvard students representing the Chinese Debating Council visited Stanford and on April 17 met Lawrence Kimpton and Herbert Wenig in a debate on the question, "Resolved: That the Chinese Philosophy of Life Is More Conducive to Happiness Than the American." The affirmative was upheld by the Chinese speakers, Victor K. Kwong and Peter K. Kiang.

SAN JOSE DEBATE

Before a women's assembly at San Jose State Teachers' College on April 17, Edwin Gerhardt, Isador Botasof, and James Robb (affirmative) met a San Jose State team on the question, "Resolved: That Women Are More Practical Than Men."

ENGLISH TOUR

Robert McClintock represented Stanford as a member of an All-California team in a series of debates with English universities (including Oxford and Cambridge) during April and May. Gregson Bautzer, of the University of Southern California, and Garff Wilson, of the University of California, were the other members of the team. The tour was sponsored by the National Student Federation of America upon invitation of the English Students Union. Questions debated were, "Resolved: That This House Deplores the Prevailing Cynicism in Modern Thought"; "Resolved: That This House Disapproves of Modern Woman"; "Resolved: That One Can Be as Happy in America as in England"; and "Resolved: That the American Doctrine of Prosperity Is Sound."

Before sailing, the All-California team engaged in debates with an All-Ohio team in Cleveland on April 1, a Harvard team at Cambridge on April 3, and a Columbia team in New York City on April 10.

PACIFIC COAST EXTEMPORANEOUS CONTEST

For the third time in five times participating, Stanford won first place in the Pacific Coast Extemporaneous Speaking Contest held in Tucson, Arizona, on March 26. Robert McClintock represented Stanford, speaking on the subject, "The Junior College."

SOUTHERN CALIFORNIA TOUR

During the spring vacation a team composed of Daniel Bryant, Edmund Jones, and William L. Shaw toured Southern California, debating the affirmative of the question, "Resolved: That Modern Science Tends to Destroy Theistic Faith." This team met Pomona College on March 24; Loyola College on March 26, before a large gathering at the Los Angeles Elks Club; California Institute of Technology on March 27; and Occidental College on March 29, at a dinner given by the City Club of Los Angeles. The Loyola debate was held before three judges who voted unanimously in favor of the affirmative.

WOMEN'S DEBATES

The Stanford-California Women's Dual Debates were held on December 2 and 3, the question being "Resolved: That the Breakdown of Conventions

Is Detrimental to the Youth of Today." In the first debate, Adele McMannus and Isabell Warren upheld the affirmative for Stanford, and in the second debate, held at Berkeley, Anne Hightower and Mary-Katherine Morris, representing Stanford, defended the negative.

On February 25, a team composed of Jean Magnus and Nanelia Siegfried met the Parliament of University of California in Berkeley, upholding the affirmative of the motion, "Resolved: That the Full-Time Employment of Married Women in Industry Should Be Prohibited by Law."

Modesto Junior College women were next debated on March 6 and 7 on the question, "Resolved: That the Present Age Is Too Materialistic." The teams were: Esther Kelly and Adele McMannus, Stanford affirmative; Mary-Katherine Morris and Isabell Warren, Stanford negative.

The dual debate with University of Southern California women was held on May 15. The motion, "Resolved: That Social Fraternities and Sororities in American Universities and Colleges Are Undesirable," was supported by Jean Magnus and Adele McMannus, and opposed by Mary-Katherine Morris and Isabell Warren.

DEGREES CONFERRED

([1]October 4, 1929; [2]January 10, 1930; [3]April 4, 1930; June 16, 1930)

BACHELOR OF ARTS

SCHOOL OF BIOLOGICAL SCIENCES

Lyman David Benson
With distinction
Freda Marian Buckingham
William Sylvester Burt
[1]Van Rensselaer Hamilton
Robert Archie Henry
Dorothy Emilee Kimberlin
Anton Laubersheimer
[2]Clifford Adolph Nelson
Oliver Wendell Norvell
[3]Carl John Paul
Frank Chester Reynolds
[1]Dudley Phelps Sanford
[3]Leo Shapovalov
Robert Lowell Wagner
[1]Juanita Emilie White

BACTERIOLOGY AND EXPERIMENTAL PATHOLOGY

Gertrude Dickerson Barker
[3]Jack Valentine Chambers
[3]Lily Laura Chloupek
[3]John William Devereux
[1]Louis Philipp Gebhardt, Jr.
Emmett Edward Henderson
Thomas Gorman Lawler
John Edward Lindenmayer
[3]Russell Withenbury Lyster
Ryland Randolph Madison
George Roger Matthews
Glenn Emmet Millar
Samuel Arthur Schuyler
With distinction
[1]Roger Graham Simpson
Ralph Levi Tracy, Jr.
Elwood Larkins Woolsey

BOTANY

John David Cassel
With distinction

PHYSIOLOGY

[2]Sydney Madge Davant
Raymond Thorwald Eklund

ZOÖLOGY

Harry Edwin Barker
Fred August Bianchi
[1]Charles Edwin Cooper
[3]Richard Deidrich Cutter
With great distinction
William Abbott Dill
Edward Francis Healey
[3]Miriam Miller
With distinction
[2]George Sprague Myers
Robert Lee Simpson
Robert Preston Watkins

SCHOOL OF EDUCATION

EDUCATION

[2]Waddington Blair
Alice Bernice Bonn
With great distinction
[1]Florence Greenlaw Brown
[1]Sanford Ester Carver
[1]Ch'u Chai
[3]Francis Yung Chang
Oliver French Clarke
[3]Kanhaiya Lall Dixit
[1]Barbara Frick
With distinction
Paul Kidder Harlow

[1]Samuel Glenn Hartranft
[2]Sheldon Miller Hayden
[3]Charles Li
[1]Evelyn Dent Mitchell
With distinction
[1]Morley Walter Mitchell
Allen Hankins Nicol
[3]Donald Ross Nugent
With great distinction
[1]George Lahey Pascoe
Ruth Anita Patterson
With great distinction
[1]Mary Elizabeth Reene
[3]Hazel Alice Reynolds
David John Roach
With great distinction
[1]Donald James Tormey
[3]Cheng Wang
[1]William John Ward
[3]Ming Hua Wei
Independent Study Plan
[3]Richard Carl Worden

EDUCATION: GRAPHIC ART

[2]Edward Beverly Krough
With distinction
Lincoln Ragnar Carl Malmquist
Bickford Clarence O'Brien
Harriet Edith Sutton
[1]Dorothy Virginia Volland
[1]Elizabeth Moody Williams

SCHOOL OF ENGINEERING

William Milton Adler
Donald Malcolm Anderson
William Martin Armstrong
Robert Needham Ayars
Edmund Chapman Babson
With distinction
Hadley Robertson Bramel
William Morrison Brobeck
With distinction
Donald Merritt Brown
Kenneth Morrison Brown
With great distinction
Carl Wayland Capwell
George Howard Cardiff
Thomas Ross Cooper
Rowan Cummins
Albert Edward Doerr
[3]Edwin Ogden Driggs
Frank William Erlin, Jr.
Alfred Mendel Esberg
With distinction
[2]John Hamilton Ferns
[2]Marshall Marron Fickert
Henry Lee Flood
[3]John Miller Fowle
Benjamin Burt Frost
Warren Stanley Gage
[2]Arthur Curtis Hall
Abraham Lincoln Hawley, Jr.
Louis Hegy
Horace Waldo Hindry
[3]John Hock How
[3]Henry Luke Hoxie
Benjamin Wylie James
With great distinction
Edward Francis Koch
With distinction
[2]George Raymond Krotser
Frank Barstow Lee
Allen Bosley Lemmon, III
Terrell McKenzie
Herbert Joseph Mayer
With great distinction
[3]Niel Fairhurst Meadowcroft
Onice Eugene Mechem
With distinction
Mervin Thomas Miller
Hewitt Frenyear Mitchell
With distinction
[3]Anthony Henry Mulvey
[3]John Warren Nute
Obert Belford Olson
Raymond Jorgensen Perin
Warren Rutland Philbrook
Howard Charles Platt
Philip Morton Shaw
[3]Victor Siegfried
Julian Winthrop Silliman
With distinction
Anthony Patrick Simatovich
[3]Hebard Payson Smith
Edward Joseph Soares
[2]Howard Everett Stubblefield
Hal Rowe Terwilliger
With distinction
[1]George Frederick Theuerkauf

[3]William Robert Triplett
With great distinction
Gerald Francis Twist
Edward Wilfrid Walker
Raymond C. Walsh
Albert Richard Wendt
Palmer Wheaton
[3]George Winthrop Whitney
[2]John Francis Williams
William Karl Wittausch

CIVIL ENGINEERING

Donald Edward Carlson
[2]George Avery Chester
John Alfred Clark
William Truitt Ingram
[2]Carl Frederick Izzard
With great distinction
William Francis Trigeiro

MECHANICAL ENGINEERING

[3]Amos Ross Mead
[2]Walter Thomas Mills, Jr.
Lemuel Coats Smith, Jr.
James Thomas Youd

MILITARY SCIENCE AND TACTICS

Jack Frederick Dohrmann
John Beverly Preston
Warren Andrew Wilson

PRE-MINING CURRICULUM

Wesley Philip Cox
[1]Ernest Albert Dunbar

SCHOOL OF LAW

PRE-LEGAL CURRICULUM

[2]Lawrence Twyman Babcock
James Christopherson Ingebretsen
With great distinction
[3]Walter Arwin Ormsby
Philip Yancey Pendleton, Jr.
[3]John William Ross
[2]Theodore Kinne Shoenhair
[3]Elwood Jasper Wilson

SCHOOL OF LETTERS

[3]Archibald William Allen
With distinction
Frank Olin Copley
With great distinction
John Bernard Jago
[3]Templeton Peck
Nanelia Siegfried
With distinction
[1]Virginia Grace Voorheis

CLASSICAL LITERATURE

[3]Janet Crowley Blethen
[2]Ward Pfeiffer Merner
Helen Eva Yeomans
With great distinction

ENGLISH

Chester Wiggin Blackman
Elmer Vernon Cordry
[2]Laird Houston Doyle
[3]Janette Evelyn Durfey
[1]Raymond Henry Fisher
[3]Jessie Edrie Fleming
Fred Ward Foultz
Eleanor Anne Griffin
[1]Ruth Edwina Hembroff
Florence May Henry
Martha Judson
Charles Howard Lane

Richard Gordon Lillard
Annele Helene McGee
[2]Martha Jane McLaren
Sandro Benzenberg Mayer
[3]Marzieh Khanom Nabil
With great distinction
[3]Margaret Katherine Pierce
[2]Marian Elizabeth Reed
Mildred Dabney Shearer
Norman Omar Waldorf
With distinction
Leland Ford Wilcox
Elizabeth Woodyatt

ENGLISH: PUBLIC SPEAKING

Katherine MacArthur Drew
[1]Merrill Bennett Giberson
William Sumner Greene
Elizabeth Ann Lynch
[3]Kathryn Palmer
Phoebe Elizabeth Plate
Meredyth Savage

GERMANIC LANGUAGES

William Basil Aldwell
Walter Ralph Cope
[2]Claire Mary Pierce

ROMANIC LANGUAGES

Stuart Myron Alley
[2]Catherine Tull Coman
Theodora Edith Deirup
[3]Elizabeth Bentley Doughty
Mary Alverna Givan
Marcella Hazel Grannis
Vera Theresa Hahn
Cornelia Staats Ireland
With distinction
Helen Frances Jones
With distinction
Michael Walter McGrath
Lois Ticknor Martin
[3]Cecily Morse
[1]John Turner Reid
With distinction
[2]Olga Luella Seibert
Richard Reginald Stewart
Margaret VanNorden
Ann Bradford Wheeler

SCHOOL OF MEDICINE

PRE-CLINICAL SCIENCES

James Adam Barr, Jr.
With distinction
Evelyn Bess Chapman
Harold Davidson Cramer
James Willis Crever, Jr.
Delbert Henry DeSmet
Frank Sigel Dietrich
James Foss Fleming
Harry Flyer
Alfred Lewis Fox
Lung Fung
Edmund Patrick Gaynor
Russell Vantile Grant
[1]Evan Morgan Kackley
With distinction
Reimers Doran Koepke
Niroku Howard Kusumoto
Sidney Clarence Madden
Thomas Francis O'Connell, Jr.
Ernest Winslow Page
With distinction
Alfred Marlatt Palmer
Gandolfo Prisinzano
Milburn Howard Querna
George Bernard Robson
With distinction
Julius Scholtz
Jerome Frost Smith
Leland Franklin Studebaker
Henry Toru Tamada
[1]William Maxwell Thebaut, Jr.
Robert Lancefield Thomas
With distinction
Donald Ernest Thompson
James Leo Tobin
John Roland Upton
George Archie Wood

SCHOOL OF PHYSICAL SCIENCES

[1]Horace Albert Barker
With great distinction

Ruth Robinson Meyer
With great distinction
Milton Morris Silverman

CHEMISTRY

Lewis Nelson Adams
[3]Maurice Ralph Amsden
[3]Edward Dow Armstrong, Jr.
[4]Dorothy Margaret Brown
With distinction
Francisco Manuel Canseco
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With distinction
James Buente Cull
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[2]Henry William Hobbie
[3]Frank Howlett, Jr.
Bradford Benedict Hudson
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Humboldt Walter Leverenz
William Jackson McCallum
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Floyd Emery Munson
[3]Marshall Galucia Mustain
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Frederick Wayne Russell
Robert Temple Shipp
Gilbert Wheeler Smith
[3]Jack Carpenter Smith
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[3]Edward Eugene Snyder, Jr.
[2]Elmer Fred Tesche
Thomas Edward Wilde

GEOLOGY

[2]Elmo Walter Adams
Mary Frances Balch
[3]Julian Devreaux Barksdale
Charles Mumaw Cross
[1]Rae Frederick Helmke
Floyd Lemuel Johnson

Cecil Clair Killingsworth
[3]John Herbert McMasters
With distinction
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With distinction
[3]Loring Bertram Snedden

MATHEMATICS

Thomas Jefferson Bass, Jr.
[3]Franklin Alfred Butter, Jr.
Irval Wayne Carter
With distinction

Marjorie Marie Ley
With distinction
Paula Weinstein

PHYSICS

[3]Walter Edward Albertson
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Donald Bader Weaver
Philip Daniel Williams

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Dorothy Bogen
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Lawrence Belknap Hall
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[2]Edward Harlan Marks
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[5]William Francis Reed
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Melvin John Rowe, Jr.
Christian Anton Sarau
With distinction
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Calvin James Smith
[8]Frederick Haviside Swan
Helen Thornton Ward
[3]Laurence Milton Weinberg
[1]Marion Russell Woehnert
[2]Calvin Everett Wright
Frances Wade Yeazell

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With distinction
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[1]Maurice Thomas Hedderman
[1]Oliver Lincoln Hobson
[2]Jack Ormond Hodges
Kenneth Zoellin Mansfield
Stanley Arthur Milne
Robert Lee Patton
With distinction
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Robert Dean Speers
George Watkins Story
Robert Briant VanEtten

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With distinction
Norma Judd

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Edward Gerald Anderson
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[2]Albert Victor Bean
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Bertram Cedric Boeseke
[2]Herbert Harry Boomer, Jr.
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John Robert Bristow
[1]George Nolan Brown

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[3]Jack Abeel Carrington
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[3]Ross Harbaugh Chamberlain
Edwin Perry Churchill
With distinction
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Stephen Kenneth Clarke
Floyd Willis Clouse
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William Bayley Coberly, Jr.
[1]Henry Clay Cole
[1]William Henry Collins
[1]Eldredge Ersie Combs
Carl Herbert Conradi
Carvel Bothin Craig
[2]Sherman Leonard Crary
William Jones Crebs
[3]Ronald McLeod Crookshank
William Edward Cundall
Theodore Thomas Daniels
Gerd Danneman
[3]Herbert Wesley DeCou
[3]Walter John Dill, Jr.
[3]Edward Thomas Dillon
Henry Audell Dixon
[1]Cecil Thane Doll
[3]Lloyd Wilson Dow
Fred Ducato
[1]Harold Maurice Duncan
Salmon Fletcher Dutton
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Theodore Edward Euler
[2]Robert Offutt Ewell
William Falger, Jr.
Paul Jones Fannin
George Comte Feliz
With distinction
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Edward Park Fogg
[1]George Heilig Force
[1]William Arthur Fort
[2]Edson Louis Foulke, Jr.
Martin Frankel
[1]Christopher Freeman
Lynn Buck Frisbee
[3]Irving Albert Frohlich
[3]Harry Paul Gamble
[1]Leslie William Garner
John Cary Gilman
[3]Craddock Matthew Gilmour
[1]Ewart Wade Goodwin
Frank Lansdell Gordon
Nason Eustace Hall
[3]Norma Knowles Hall
[1]Clarence Morgan Hanson
Theodore Darling Harriman
Everett Glenn Harris
Henry Harris, Jr.
John Albert Harvey, Jr.
[3]Walter Henry Heineman
Helen Stevenson Henderson
[1]Louis John Hensen
Arthur Sedgwick Herbert
Victor Albert Hermann
Harry Hartley Hill
Lewis Deming Hobart
[2]Warren Daniel Hopkins
John Harry How
[1]William Henry Hubbard, Jr.
[3]Frederick Faber Hubler
[1]John MacLain Hunt
Mervin Lawrence Hutcherson
Albert Abel Jensen
Theodore William Jessee
[1]Walter Andrew Johnson
Squier Jones
John Carrol Jordan
[1]George Anthony Kellenberg
[1]Edward Francis Kengel
[2]John Hanscom Kennedy
Albert Eugene Kern
Robert Carter Kirkwood
Kenzie Kitasako
Frank Robert Lasley
Frederic Henry Laudenslager
Richard Gerichs Lean
With great distinction
John Baker Lee, Jr.
With great distinction
Hugh Hamilton Leland
Walter Emile Letroadec
John Milton Levin
Robert Louis Levin
Douglas Batchelder Lewis
[1]Arthur William Linse
With distinction
Sidney Grant Lippitt, Jr.

Stanley Colby Livingstone
With distinction
Allison Rose Loeffler
George Irving Long, Jr.
Malcolm Sinclair Lonon
[3]John Bole McCandless
Douglas Hamilton McCormack
Lorenzo Mark McOmie
Cedric Merit Madison
Gustaf Carl Malmquist
Kenneth Richard Malovos
With great distinction
Harold William Mann
[3]Melville Marx
Carl Norman Mather, Jr.
With distinction
George Kern Mauser
[1]Evelyn Katherine Mayer
With distinction
[1]Fred Homer Merrill
Henry Michaels
Henry Clay Miller, Jr.
Vincent Hall Mires
[1]Paul Hilliker Mockett
[2]Chester Carl Moomaw
George Eugene Moore
Alexander Bogy Morris
Dale Angus Morrison
Dean Morrison
[1]Nathan Charles Morse
[2]Donald Fletcher Muller
John Stanley Mullin
Donald Sheets Nelson
[1]Morgan Robin Nickell
Nilan Elmer Norris
With great distinction
[2]Robert Starr Northrop, Jr.
With distinction
James Manuel Nunes
Harry Safford Nye
Irvine Horace Nye
[3]Ernst Carl Ophüls
Richards Clinton Osborn
With distinction
Robert Findlay Paine
[1]Edward James Peckler
Ralph Marion Powers
With distinction
[2]Norman Uriah Pratt
Raymond Purdy
Barbara Putnam
With distinction
John Hastings Pyle
John Wilbur Ray
[1]Foster Bond Rhodes
Robert LeGrande Richards
Catherin Mary Rossarini
Milton Harper Rowley
[1]Reginald Rumwell
[2]John William Ruwe, Jr.
Richard Edward Sagal
With distinction
John Henry Saunders, Jr.
Robert Sheldon Sawyer
With distinction
Jacob Theodore Schwafel
William Lutz Shattuck
Ralph Hugh Simons
[2]Robert Floyd Sims
[2]John Hutchins Singer
Edward Lee Smith
George Raymond Smith
With distinction
George Shaw Smith
Phillip Bannister Smith
Powell Eugene Smith
With distinction
Earle Kirn Snider
Reginald Gordon Snodgrass
Rixford Kinney Snyder
With distinction
Stanford Eugene Steinbeck
[2]John Kenneth Stewart
[3]Elmer Leroy Stockbridge
[3]Harry Martin Tashjian
Charles Albert Tawney, Jr.
With great distinction
[3]Mark Lincoln Taylor
James William Thornton, Jr.
[3]Homer Mendel Toberman
[3]Norman Ronald Tyre
With great distinction
Edward Robinson Valentine
[1]Bert Ira VanGilder
Ervin Reeve Vessey
Charles Wesley Visel
Fred Varnum Voigt
Homer Carroll Walker
[3]Norman Edward Walsh
Irwin Chauncey Warner
[1]Harrison James Webb
[3]James Ruffin Webb
James Scott Webster, Jr.
Roger Bertram Webster
Edward Marcus Weyl
[3]Henry Gordon White
Jack Harry Whitesel
With great distinction
Ansel Smith Williams, Jr.
Arnold Otis Williams

[1]David Arnold Williamson
Merrick Peck Winkler
Max Winter, Jr.
[1]Roy Wilmer Wood
John Franklin Work
With distinction
Ellsworth Wesley Wotring
With great distinction
Muirson Chambers Wright

ECONOMICS: ACCOUNTANCY

[2]Ralph Judson Brenner
Charles Elvan Cobb
Adelbert Nevin Culling
With distinction
John Harman Eldridge
With distinction
Robert Willus Johnson
Eric Christian William Krenz
With distinction
David Ralph Malcolm, Jr.
With great distinction
Walter Day Manning
Albert John Mielke
[2]Ream Victor Miller
With distinction
John Blair Morrison
Ansgar Clarence Olson
[1]Kingsley Tufts
Milas Erle Walters

ECONOMICS: JOURNALISM

Thomas George Irwin

ECONOMICS: SOCIOLOGY

Stanley Goddard Reinert

HISTORY

[2]George Leslie Andreini
Richard Maurice Ballin
Anne Josephine Bancroft
[1]Danily Clarence Bell
George Emery Bodle
Elizabeth Hayes Bonn
Albert William Breuer
[1]Mary Stuart Center
Elsie Leslie Chase
Robert Montgomery Clarke
Rosamond Clarke
Catherine Anne Colegrove
Helena Duryea
[2]Albert Edward Forster
[3]Merle Roscoe Gross
Eminel Potter Halsted
Reginald Hugh Harrison
Winchester Hallock Heicher
Olin Rice Hughes
[2]Alice Louise Ingraham
Independent Study Plan, with distinction
[2]David S. Jacobson
Independent Study Plan, with distinction
Edmund Hawley Jones
[1]Leo Paul Kibby
Jean Kinsman
John Chamberlain McClintock
[3]John Ezra McDowell, Jr.
Martha Clift McDowell
[1]Charles Henry McKiernan
Boyd MacNaughton
[3]Harry Lee Maltby
Benetta Delight Merner
Bernard Morris
[3]Paul Fuller Murphy
James Benjamin Peckham, Jr.
With great distinction
Janet Giles Post
With great distinction
[3]Rufus Percival Ranney
William Brand Riley
[3]Morris Roumm
With distinction
[2]Fred Mills Russ
Elisabeth Harding Scattergood
Paul Alexander Sexson
Elizabeth Theresa Shively
Maxine Mabel Shoenhair
Helen Agatha Smith
With distinction
Muriel Imogene Stearns
Charles Stern, Jr.
Edgar Burkehart Stewart, Jr.
Arthur Waters Stuart
Sylva Titian Weaver
[3]Catherine Campbell West
[1]Robert Edward Wright
Dorothea Edith Wyatt
With great distinction
David Evans Wynne
With distinction

PHILOSOPHY

Elizabeth Ives Boynton
Oliver Charles Dunn
Mona Bedortha Dutton
With great distinction
[1]John Hackney Hamlin
Ford Whitman Harris, Jr.
[2]Marshall Kirby
With distinction
[3]John Leland Mothershead, Jr.
With distinction
Patricia Etheridge Rhodes
With great distinction
Florence Elizabeth Shupp
Kenneth Reed Shupp
George Elton Watson
Margaret Julia Zumwalt

POLITICAL SCIENCE

[3]Arthur Desko Angel
[1]Fenton Avery Barrett
[2]Forrest Llewellyn Bentzien
Harry Clinton Berg
Robert Kuhls Blinn
Independent Study Plan, with great distinction
Lee Gorin Brown
Walston Shepard Brown
Independent Study Plan, with distinction
Benjamin Franklin S. Card
[3]Powell Ward Carpenter
[2]Hui Wen Chang
[1]Lewis Wilber Clark
John Marshall Cooper
[3]Katharine More Crane
Maxine Abbott Cushing
With distinction
Stephen Mann Dietrich
Virgil C. Dowell
Charles Park Eddie
William Carlisle Ferguson
Charles Marvin Fox
Edward James Goldie
With distinction
Douglas Clark Gregg
Homer Vincent Hartzell
[2]Yichun Ho
Arthur Curtis Hurt, Jr.
[1]John Paul Jennings
Albert Alexander King, Jr.
With distinction
David Isaiah Kline
Bruce Miller Knox
DeWitte Washburn Krueger
George Albert Lazar, Jr.
Frances Marian Leachman
[2]Joseph James McCaffery, Jr.
Robert Shinski McKellip
[3]Dora Katherine Matfield
John Warren Montgomery
[1]Luther Franklin Moore, Jr.
Florence Lee Ogier
John Clark O'Sullivan
[1]Frank B. Patten, Jr.
[1]Margaret Peasley
Keith Wadsworth Peters
[1]Roy Gerald Peterson
With great distinction
[3]Joseph John Polverino
Andrew Oliphant Porter
With distinction
Earl Elbert Reed
Earl Marvin Robins
Wilbur Hunt Rowland
Victoria Schuck
With great distinction
[3]Chih-Yuan Sen
[3]William Lawrence Shaw
Frances Elizabeth Shoup
Charles Blakslee Smith
Lewis Nelson Smith
Meredith Kopp Smith
Philip Templeton Smith
[3]John William Solomon, Jr.
Paul Lanz Speegle
James Milford Springer
Theodore Simeon Starr
Philip Douglas Stitt
Frederick Eaton Stone
With distinction
Marshall Kellogg Taylor
Independent Study Plan
[3]Liselotte von Usedom
George Vahey
[2]James Eugene Walker
Riley Garn Webb

PSYCHOLOGY

Annie Lou Carmichael
With distinction
Mariana Evans
With distinction
Edward Winter Field
Maurice Robert Friend
With distinction
Christopher William Hartsough, Jr.
[1]William Clarence McDermott
Joseph Mandel
Jeannette Snyder Noack
With distinction
Arthur Orner
[1]Robert Richardson Sears
With distinction
Pauline Kirkpatrick Snedden
Hervey Alan VanNuys

AT LARGE

George Fowler Morell

MASTER OF ARTS

SCHOOL OF BIOLOGICAL SCIENCES

[2]Louise Dawes Shedd
A.B., Stanford, 1928
[1]Sibyl Wachter
A.B., Wellesley, 1920

BACTERIOLOGY AND EXPERIMENTAL PATHOLOGY

Floyd Russel Smith
A.B., Bucknell, 1929

BOTANY

[1]Milo Samuel Baker
B.S., California, 1895
John Wendell Howe
B.S., Oregon State Agricultural College, 1924

FOOD RESEARCH

Wen Yuh Swen
B.S., Nanking, 1924

PHYSIOLOGY

[1]Margaret Marie Twombly
A.B., Stanford, 1912

ZOÖLOGY

[2]Chi Jung Lo
A.B., Stanford, 1929

SCHOOL OF EDUCATION

EDUCATION

[1]James Gladstone Akright
A.B., Kansas, 1922
[3]Hobson Dewey Anderson
A.B.,Stanford, 1929
Frank Edward Bishop
A.B., Nebraska Wesleyan, 1916
[2]Arthur Earle Bobb
A.B., Stanford, 1926
[1]Cecil James Carroll
A.B., Western State College of Colorado, 1924
Norval Luther Church
B.M., Wisconsin, 1925
[1]Charles Clarence Conley
Ph.B., Chicago, 1915

[1]Dudley Sargent DeGroot
A.B., Stanford, 1924
[1]Emily DeVore
B.S., Columbia, 1927
[1]Henry Sherman Douglass
A.B., Colorado State Teachers College, 1922
Gilmore Adelbert Duncan
A.B., Stanford, 1929
[2]Frederick Ernest Dyche
A.B., Wichita, 1918
Carl Martin Eklof
B.S., Idaho, 1916
[1]Loyd Creighton Elliott
B.S., Arizona, 1913
Bert Morse George
A.B., Idaho, 1909
[3]Guy Gaius George
B.S., Whitman, 1913
Cecil Brammer Hayes
A.B., McPherson, 1926
[3]Lester Dale Henderson
A.B., Tarkio, 1911
[1]Fred Percy Hogan
A.B., Fresno State College, 1925
[1]Clarence Irwin
A.B., Stanford, 1927
William Lincoln Iversen
A.B., State College of Washington, 1923
William Allison Johnson
A.B., Nebraska State Normal, 1927
Hally Foster Jones
A.B., Stanford, 1929
[1]Harold Budd Jory
A.B., Willamette, 1915
[1]Edwin Christian Kratt
A.B., Linfield, 1924
[1]Oliver Crook Lawson
A.B., Stanford, 1926
Viva May Lindahl
A.B., State College of Washington, 1916
Freeman Glenn Macomber
A.B., Washington, 1926
[2]Robin Pearl Meairs
B.S., Kansas State Teachers College, 1922
[1]Paul William Mott
A.B., San Diego State Teachers College, 1928
Manford Eugene Mushlitz
B.S., Idaho, 1924
[1]D. Lloyd Nelson
A.B., Abilene Christian College, 1929
Louis Edward Oberson
A.B., Willamette, 1928
George Lee Ogden
A.B., Nebraska Wesleyan, 1917
[2]William August Otto
A.B., Michigan, 1906
[3]James Henry Pendleton
A.B., Wichita, 1919
[1]Samuel Everett Peters
A.B., Maryville, 1921
[3]John Milton Platts
B.S., Rose Polytechnic, 1899
[3]Arthur Henry Polster
A.B., Central Wesleyan, 1920
[3]Howard Leroy Rennick
B.S., Kansas State Teachers College, 1926
[1]Drusilla Hichborn Rhodes
A.B., San Jose State Teachers College, 1926
[1]Camillus Walter Rogers
A.B., Stanford, 1928
[1]Marvin Alexander Rogers
A.B., Stanford, 1922
[1]Charles Leroy Ruby
A.B., Central Normal School, 1925
[1]William Horton Spillers
A.B., New Mexico, 1926
[1]Donald Hammond Thompson
A.B., Whitman, 1915
[1]Hugh Marvin Tiner
A.B., Abilene Christian College, 1929
[1]Robert Chadwick Titus
A.B., Stanford, 1925
Norma Anne Toalson
A.B., Stanford, 1929
[1]Flora Walker
A.B., San Jose State Teachers College, 1927
Thom Tong Wang
A.B., National Central University, 1927
Gerald Arthur Williams
A.B., Stanford, 1929
[1]James Henry Winegardner
B.S., Idaho, 1921
[1]Harry Reuben Woodward
A.B., Dakota Wesleyan, 1916
Shu-Pan Wu
A.B., Stanford, 1929
[1]Alfred Coombs Young
B.S., Kentucky, 1915

SCHOOL OF LETTERS

CLASSICAL LITERATURE

[1]Ida Bel Eby
A.B., Pacific University, 1909
[1]Estella Dorothy Whitney
A.B., Oklahoma, 1922
Dorothy Helen Wineberg
A.B., Stanford, 1928

ENGLISH

Jacob Abers
A.B., California at Los Angeles, 1927
[1]Ada Russell Beveridge
A.B., Mills, 1921
[1]Dorothy Bowen
A.B., Stanford, 1927
Carol Porter Church
A.B., Stanford, 1929
Ruth Walker Mantz
A.B., Stanford, 1919
Mary Petty
A.B., Mills, 1920
Genevieve Rogers
A.B., Stanford, 1926
[2]Carlton Allyn Sheffield
A.B., Stanford, 1923
Virgil Keeble Whitaker, Jr.
A.B., Stanford, 1929
Frances Lyman Worthington
A.B., Stanford, 1929

ENGLISH: PUBLIC SPEAKING

Dorothy Margaret Quinn
A.B., Stanford, 1928

GERMANIC LANGUAGES

Anthony Eugene Sokol
B.S., Mississippi State Teachers College, 1927
Fredricka Esther Wagner
A.B., Nebraska, 1929
[3]Louis Paul Woerner
A.B., St. Mary's, 1923

ROMANIC LANGUAGES

Serge Chadwick Ballif
A.B., Brigham Young, 1927
Virginia Bunnell
A.B., Stanford, 1928
[1]Helen Raywil Collier
A.B., Baylor, 1921
[1]Alice Palmer Coppock
A.B., New Mexico, 1927
Helen Lodema Delatour
A.B., Stanford, 1928
[1]Raymond Charles Ede
B.S., Nevada, 1927
Mary Teresa Fatjo
A.B., College of the Sacred Heart, 1928
[1]Meta Marion Goldsmith
A.B., Oregon, 1914
[1]Mary Louise Hulme
A.B., Stanford, 1928
Grace Knopp
A.B., Oregon, 1920
Walter Peter Miksch
A.B., Linfield, 1926
[1]Evelyn Miller
A.B., Stanford, 1921
[1]Aurelia Maria Osuna
A.B., New Mexico, 1922
Ruth Henrietta Stocktill
A.B., Stanford, 1929
[1]Sheldon Kessinger Wirt
A.B., Stanford, 1928

SCHOOL OF MEDICINE

PUBLIC HEALTH AND PREVENTIVE MEDICINE

Ora James Gibson
A.B., Stanford, 1929

SCHOOL OF PHYSICAL SCIENCES

CHEMISTRY

Edward Allen
A.B., Stanford, 1929
Lois Elaine Barton
A.B., San Jose State Teachers College, 1928
[2]Homer Clark Brumbaugh
B.S., McPherson, 1928
Earnest Sylvan Greene
A.B., San Jose State Teachers College, 1927
[2]Yasota Kawakami
M.S., Tohuku Imperial University, 1926
Frank Allen Lucy
A.B., Stanford, 1929

[2]Sumner Hatch McAllister
A.B., Stanford, 1929
[2]Winifred Lovisa McClatchie
A.B., Stanford, 1929
Richard Andrew Ogg, Jr.
A.B., Stanford, 1929
Ruth Harriet Parrish
B.S., Massachusetts Agricultural, 1929
Jean Benedict Spaulding
A.B., Stanford, 1928
Ruth Constance Wooster
A.B., Stanford, 1927

GEOLOGY

[2]Fritz Eghard vonEstorff
A.B., Stanford, 1928
Benjamin Franklin Hake
A.B., Stanford, 1920
Francis Newlands Johnston
A.B., Harvard, 1927
Moses Marion Kornfeld
A.B., Stanford, 1927
William Clement Putnam
A.B., Stanford, 1929
Robert Rogers Wilson
A.B., Yale, 1925

MATHEMATICS

[1]Anna Leonora Davis
Ed.B., California at Los Angeles, 1926
Wynette Lorene Fowler
A.B., Stanford, 1929
Evelyn Bernice Linderholm
A.B., Stanford, 1929
[1]Chester Francis Luther
A.B., Stanford, 1928
[2]Mary Gertrude von Stein
A.B., Stanford, 1919

PHYSICS

[3]Kenneth Berkeley Stoddard
A.B., California at Los Angeles, 1928
[1]Paul Berthold Wagner
B.S., California Institute of Technology, 1928

SCHOOL OF SOCIAL SCIENCES

[1]Yuan-Chen Cheo
A.B., San Jose State Teachers College, 1928

SCHOOL OF SOCIAL SCIENCES: JOURNALISM

[3]John Harold Casey
B.Jn., Missouri, 1920
Elverton Blakney Stark
A.B., Puget Sound, 1929
Marion Olive Sten
A.B., Oregon, 1929

ECONOMICS

[2]Sau Man
A.B., Lingnan, 1928
[3]Albert Payne Mills
A.B., Hamilton, 1903
[3]Warren Glenn Moody
A.B., Stanford, 1924
Janet Helen Murray
A.B., Vassar, 1926
[1]Alfred Ishmael Nichols
A.B., Colorado, 1927
[3]John Glotfelty Shott
A.B., Iowa, 1927
[1]Stacy H. Smith, Jr.
A.B., Stanford, 1927
Ruby Turner
A.B., Vassar, 1929

ECONOMICS: ACCOUNTANCY

[3]Tetsuo Hayashi
B.S., Southern Methodist, 1927

HISTORY

Stephen Martin Barooshian
A.B., Stanford, 1921
John Ferdinand Cummins
A.B., Stanford, 1928
[1]Cora Rowell Givens
A.B., California, 1923
[1]Fay Dunn Hamilton
A.B., Stanford, 1928

[1]Judith Virginia Hedges
A.B., Stanford, 1928
[3]Erford Ansel McAllister
A.B., College of the Pacific, 1922
Glenn Alvin McCord
A.B., Phillips, 1924
Charles Henry McKiernan
A.B., Stanford, 1929
[1]Malcolm Price Murphy
A.B., Colorado College, 1926
[1]Eva Theresia Nelson
B.S., Minnesota, 1923
[1]Barbara Sherman Probasco
A.B., Stanford, 1927
[1]Alice Madeleine Rose
A.B., Stanford, 1928
Mary Lusia Schofield
A.B., Stanford, 1929
Charles Nelson Spinks
A.B., Stanford, 1929
Dorothy Troy
A.B., Stanford, 1929
[3]Harris Gaylord Warren
B.S., Purdue, 1926
Irene Lucile Way
A.B., Stanford, 1929
[1]Edward Arthur White
A.B., Stanford, 1928
Maxine Dorothy Whitney
A.B., Oberlin, 1924
Stephen Williams
A.B., Stanford, 1929

POLITICAL SCIENCE

Shau Hong Chan
A.B., Lingnan, 1928
[3]Lashley Grey Harvey
A.B., William Jewell, 1925
[1]John Bingham Hurlbut
A.B., California at Los Angeles, 1928
Chi Min Li
A.B., Ohio, 1927
[1]Paul Mahoney
A.B., Stanford, 1929
Willis Grafton Nealley
A.B., Maine, 1929
[3]Hua-Kuo Pao
A.B., Stanford, 1929
Marjorie Eastman Rice
A.B., Stanford, 1929
Gladys Roberta Richards
A.B., Stanford, 1929

MASTER OF BUSINESS ADMINISTRATION

Jesse Knight Allen
B.S., Brigham Young, 1926
Gertrude Elisabeth Benedict
A.B., Smith, 1926; A.M., Stanford, 1928
Phillips Gardner Brooks
A.B., Stanford, 1927
Roger Bates Seay Bryan
B.S., California Institute of Technology, 1926
Ray Hatch Butler
B.S., Utah, 1923
James Hamilton Calder
B.S., Brigham Young, 1925
Helen Elizabeth Carpenter
A.B., Stanford, 1928
William Herbert Carr
A.B., Stanford, 1928
Wayne James Clark
A.B., Pomona, 1928
Howard Brady Criswell, Jr.
A.B., Stanford, 1927
Sidney Stoddard Doner
A.B., Stanford, 1928
Herbert Shulze Erickson
A.B., Willamette, 1926
Jacob George Freeman
A.B., California at Los Angeles, 1927
Douglas Raymond Fuller
A.B., Stanford, 1928
Clausin Dennis Hadley
B.S., Oregon, 1928
John Hall
A.B., Stanford, 1925
Darvel Tibbitts Hammond
B.S., Utah Agricultural, 1928
Caleb Merton Johnson
A.B., Whittier, 1928
Eugene Jackson Overman
A.B., Reed, 1927
Roy Henry Raymond
A.B., Pomona, 1928
Lewis Elden Smith
A.B., Whittier, 1928
James Zebulon Stewart, III
B.S., Utah Agricultural, 1928
Charles Christian Wagner
A.B., Stanford, 1928
[1]Clarence Christopher West, Jr.
A.B., Stanford, 1928
Herbert Morton Zandmer
A.B., Stanford, 1928

ENGINEER

CIVIL ENGINEERING

William Estey Boden
A.B., Stanford, 1928
[2]Wen-Pang Li
B.S., Illinois, 1928
Arthur Francis Pillsbury
A.B., Stanford, 1928
Robert Harry Ayers Rupkey
B.S., Arizona, 1922

ELECTRICAL ENGINEERING

Maynard Robert Born
A.B., Stanford, 1929
Henry Eric Hill
A.B., Stanford, 1929
John Stewart Low
A.B., Stanford, 1928
[1]Theodore Harding Morgan
A.B., Stanford, 1920
Douglas Harned Ring
A.B., Stanford, 1929
Clifton Ross Skinner
A.B., Stanford, 1929

MECHANICAL ENGINEERING

Jean Bart Balcomb
A.B., Stanford, 1929
[3]Cornelius Louis Hughes
A.B., Stanford, 1927
[1]Wallace Gilbert Lentz
A.B., Stanford, 1926
Rhodus MacKamey
A.B., Stanford, 1928
Ralph Westbrook Mossman
A.B., Stanford, 1928
John Frederick Parsons
A.B., Stanford, 1928
Kenneth Felton Ridley
A.B., Stanford, 1929
Russell Gideon Robinson
A.B., Stanford, 1928
Andrew Emerson Swickard
A.B., Stanford, 1928
Jarvis Arthur Wallen
A.B., Stanford, 1928
John Brooks Wheatley
A.B., Stanford, 1929
Arthur Jacob Zschokke
A.B., Stanford, 1902

MINING ENGINEERING

David Ely Green
A.B., Harvard, 1927
John Ballantine Knaebel
A.B., Stanford, 1929
[1]William Wilfred Meyer
A.B., Stanford, 1926
[2]Roy Eddy Paine
A.B., Stanford, 1927
George Powell Thompson
A.B., Stanford, 1929

ENGINEERING CHEMISTRY

[3]Robert Elmer Bolton
A.B., Stanford, 1927
Lincoln Clark
A.B., Stanford, 1929
Thomas R. Lumb
A.B., Stanford, 1929

DOCTOR OF EDUCATION

Charles Wesley Bursch
B.S., Kansas State Teachers College, 1918; A.M., Stanford, 1926
[2]Charles Gilbert Shambaugh
A.B., Earlham, 1917

BACHELOR OF LAWS

Wallace Kerrick Downey
A.B., Stanford, 1927
[1]Alfred Hamilton Driscoll
A.B., California at Los Angeles, 1927
Carl Lindberg Eardley
A.B., Stanford, 1927
[2]William Augustus Evans
A.B., Stanford, 1927
[2]Dudley Henry Harkleroad
A.B., Stanford, 1927
Jack M. Jessen
A.B., Pomona, 1926
Stanley King Lawson
A.B., West Virginia, 1927
[3]James Francis Price
B.S., Kansas State Agricultural, 1927
Orville Arnold Rohlf
A.B., Minnesota, 1927
William Stephen Scully
A.B., Loyola, 1927
Fred George Skaff
A.B., California at Los Angeles, 1927
Percy A. Smith
A.B., College of the Pacific, 1927
Joseph Daniel Thomas
A.B., Stanford, 1927
Drummond Frank Wilde
A.B., Stanford, 1927
[1]Dennet Withington
A.B., Harvard, 1922
[2]Burton Daniel Wood
A.B., Michigan State Normal, 1922

JURIS DOCTOR

[1]Merrill Augustus Armour
A.B., Stanford, 1926
Ray Frank Baker
A.B., Stanford, 1928
[2]Dallas Leslie Barrett
A.B., Stanford, 1923
[1]Robert Lewis Beardslee, Jr.
A.B., Stanford, 1927
James McNeal Blackford, III
A.B., Stanford, 1927
[3]Walter Bates Booth
A.B., Stanford, 1923
[2]William Adlai Bullis
A.B., Stanford, 1925
James Elmer Busch
A.B., Stanford, 1928
[2]Harrison William Call
A.B., Stanford, 1928
Merrill Lawrence Carlsmith
A.B., Stanford, 1928
Wallace Daniel Cathcart
A.B., Stanford, 1927
Hugh Stuart Center
A.B., Stanford, 1927
[3]Raymond Joe Coleman
A.B., Stanford, 1928
[3]Harry Maxwell Conron
A.B., Stanford, 1927
Stanley James Cook
A.B., Stanford, 1928
Merrick Woodman Creagh, Jr.
A.B., Stanford, 1928
[3]Clark David Dilley, Jr.
A.B., Stanford, 1928
Edward Murray Draper
A.B., Stanford, 1929
Guy Kimball Dyer
A.B., Stanford, 1929
Peter Joseph Ferrante
A.B., Stanford, 1928
Lawrence Salmons Fletcher
A.B., Stanford, 1928
Paul Welch Forker
A.B., Stanford, 1928
Marietta Fry
A.B., Stanford, 1928
[1]William Anderson Glen
A.B., Stanford, 1927
John Joseph Hamlyn, Jr.
A.B., Stanford, 1928
Thomas Russell Harriman, Jr.
A.B., Stanford, 1928
[1]Arthur Robert Himbert
B.S., California, 1921, M.S., 1924
William Hinckle
A.B., Stanford, 1928
Frederick Edwards Hines
A.B., Stanford, 1928
[3]William Henry Horine
A.B., Stanford, 1927
Lynn Overton Hossom
A.B., Stanford, 1928
John Kenneth Kaseberg
A.B., Stanford, 1928
[1]Richard Elsinger Lang
A.B., Stanford, 1927
[3]William Harold Levit
A.B., Stanford, 1928
Ralph Talbot McElvenny
A.B., Stanford, 1928
Lloyd Alexander Mason
A.B., Stanford, 1928
[2]Ferdinand Lowell Matthay
A.B., Stanford, 1928
[3]Arthur Capps Miller
A.B., Stanford, 1928

Clifton Reynolds Montgomery
A.B., Stanford, 1928
Gustave Adolf Mueller
A.B., Stanford, 1929
[1]Glenn DeWitt Newton
A.B., Stanford, 1924
James Coughlin Purcell
A.B., Stanford, 1928
[3]Richard Montgomery Raoul-Duval
A.B., Stanford, 1928
[1]Martin Armel Row
A.B., Stanford, 1924
[2]Byrl Richard Salsman
A.B., Stanford, 1928
Albert Frederick Scheidecker, Jr.
A.B., Stanford, 1926
John Gilhousen Sobieski
A.B., Stanford, 1928
Kryne VandenAkker
A.B., Stanford, 1928
Louis Rudolph Vincenti
A.B., Stanford, 1928
Ernest Dean Wagner
A.B., Stanford, 1928
Harold Franklin Way
A.B., Stanford, 1928
[2]Frederick August Zitkowski
A.B., Stanford, 1928

DOCTOR OF MEDICINE

Lawrence Hobbs Acres
A.B., Stanford, 1926
Wilbur Porter Bailey
A.B., Stanford, 1926
Merrill Gorr Barmore
A.B., Whittier, 1925
Albert Richard Behnke, Jr.
A.B., Whittier, 1925
Joseph Harold Boyes
A.B., Stanford, 1926
Leonard Foote Bruml
A.B., Stanford, 1926
DeWitt Kinne Burnham
A.B., California, 1926
Evelyn Hart Case
A.B., College of the Pacific, 1922
Herbert Arthur Cilley
A.B., Stanford, 1926
Robert Douglas Dunn
A.B., California, 1926
Daniel Scott Fox
B.S., Cornell, 1913, Ph.D., 1919
Louis Alfred Rodriguez Gaspar
A.B., Stanford, 1926
Richard Ernest Graun
A.B., California, 1923
Luke Munro Hamilton
A.B., California, 1925
Dorothy Hewitt
A.B., Pomona, 1924
Lowell Reed Hill
A.B., Pomona, 1925
Don Carlos Hines
A.B., Stanford, 1927
George Victor Kulchar
A.B., Stanford, 1926
Norman Benjamin Leet
A.B., California, 1925
Harris Davis Loe
A.B., Stanford, 1926
Edmund Joseph Mahon
A.B., California, 1925
Donald Carlyon Marshall
A.B., Stanford, 1925
[3]Bertha Shedd Mason
A.B., Stanford, 1925
William Herrick Northway, Jr.
A.B., Stanford, 1926
John Lane Pasmore
A.B., California, 1924
John Elbert Raaf
A.B., Stanford, 1926
Emmet Lane Rixford
A.B., Stanford, 1926
Henry Covington Rixford
A.B., Stanford, 1926
Gilbert Jay Roberts
A.B., Illinois, 1925
John Philip Sampson
A.B., Southern California, 1925
John Chester Sharp
A.B., Stanford, 1926
Phil William Shumaker
A.B., Stanford, 1926
Leonard Eugene Skilling
A.B., Stanford, 1926
Claude Cecil Stafford
A.B., Stanford, 1924
William Artell Sumner
A.B., Stanford, 1926
Donald Richard Threlfall
A.B., Stanford, 1926
William Clarke VanDeventer
A.B., Stanford, 1926
Roland Douglas Walker
A.B., Stanford, 1926
Buford Haven Wardrip
A.B., Redlands, 1925
Max Archie Waters
A.B., Stanford, 1926
David Alvra Wood
A.B., Stanford, 1926
Ralph Wesley Wright
A.B., Stanford, 1926

DOCTOR OF PHILOSOPHY

SCHOOL OF BIOLOGICAL SCIENCES

BOTANY

Harry Alfred Borthwick
A.B., Stanford, 1921, A.M., 1924

John Wynn Gillespie
B.S., Georgia, 1923;
A.M., Stanford, 1926

José Buencamino Juliano
B.S., Philippines, 1923,
M.S., 1925

[2]Ira Loren Wiggins
A.B., Occidental, 1922;
A.M., Stanford, 1925

PHYSIOLOGY

[1]Wilbur Arthur Selle
A.B., Occidental, 1925;
A.M., Stanford, 1926

[3]Eola Claire Woolley
A.B., Tulane, 1926;
A.M., Stanford, 1928

ZOÖLOGY

[1]Harold Raymond Hagan
B.S., Utah Agricultural, 1914;
M.S., Harvard, 1917

[1]Max Walker de Laubenfels
A.B., Oberlin, 1916;
A.M., Stanford, 1926

SCHOOL OF EDUCATION

EDUCATION

[1]William George Carr
A.B., Stanford, 1924, A.M., 1926

[1]Peter Lincoln Spencer
B.S., Oregon, 1922, A.M., 1924

SCHOOL OF ENGINEERING

ELECTRICAL ENGINEERING

Leland Hermon Brown
A.B., Stanford, 1922, Engineer, 1924

[1]Joseph Snyder Carroll
B.S., Utah, 1920;
Engineer, Stanford, 1924

SCHOOL OF LETTERS

ENGLISH

Madeleine Kathryn Doran
A.B., Stanford, 1927;
A.M., Iowa, 1928

[1]Lu Emily Hess Pearson
A.B., California, 1921, A.M., 1922

SCHOOL OF PHYSICAL SCIENCES

CHEMISTRY

Danella Straup Cope
A.B., Utah, 1923;
A.M., Stanford, 1926

[1]John Hughes Griffith
A.B., Miami, 1921;
A.M., Ohio, 1922

Frank Carlyle Harmon
A.B., Stanford, 1927, Engineer, 1928

Eloise Jameson
A.B., Stanford, 1910, A.M., 1912

Henry Marshall Leicester
A.B., Stanford, 1927, A.M., 1928

George Edson Philip Smith, Jr.
B.S., Arizona, 1926

Samuel Benson Thomas
A.B., Stanford, 1927, Engineer, 1928

GEOLOGY

Frank Marion Anderson
A.B., Stanford, 1895

[1]Hoyt Rodney Gale
A.B., Harvard, 1926

[1]Ulysses S. Grant, IV
A.B., Harvard, 1915
Olaf Pitt Jenkins
A.B., Stanford, 1913, A.M., 1915

[3]Siemon William Muller
A.B., Oregon, 1927;
A.M., Stanford, 1928
[1]Lionel William Wiedey
A.B., California at Los Angeles, 1926;
A.M., Stanford, 1928

PHYSICS

[1]Cedric Edward Hesthal
A.B., Stanford, 1925, A.M., 1928

SCHOOL OF SOCIAL SCIENCES

[1]Henry Albert Foster
A.B., Yale, 1907;
A.M., Chicago, 1912

ECONOMICS

Helen Cherington Farnsworth
B.S., Ohio, 1924, A.M., 1924
Delbert Ransom French
A.B., Reed, 1915;
A.M., Wisconsin, 1920

Lawrence Philip McGrath
B.S., Illinois, 1921;
A.M., Harvard, 1926
Wallace Wright
A.B., Dartmouth, 1919;
A.M., Stanford, 1924

ECONOMICS: SOCIOLOGY

Richard Tracy LaPiere
A.B., Stanford, 1926, A.M., 1927

[1]William Herman Metzler
A.B., Stanford, 1919, A.M., 1925

HISTORY

Mitchell Pirie Briggs
A.B., Morningside, 1914;
A.M., Wisconsin, 1917

POLITICAL SCIENCE

Guy Shirk Claire
A.B., Southern California, 1920;
A.M., Pennsylvania, 1928

William Frederick Cottrell
A.B., Occidental, 1925;
A.M., Stanford, 1929
[1]Hugo Wall
A.B., Stanford, 1926

PSYCHOLOGY

[2]Siegen K. Chou
A.B., Stanford, 1926, A.M., 1928

Lovic Pierce Herrington
A.B., Stanford, 1927, A.M., 1929

SUMMARY OF DEGREES CONFERRED, 1929–30

	October	January	April	June	Total
Bachelor of Arts	92	65	105	496	758
Master of Arts	58	13	19	74	164
Master of Business Administration	1	..	..	24	25
Engineer	3	2	2	23	30
Doctor of Education	..	1	..	1	2
Bachelor of Laws	2	3	1	10	16
Juris Doctor	7	6	8	31	52
Doctor of Medicine	..	..	1	41	42
Doctor of Philosophy	15	2	2	22	41
Total	178	92	138	722	1130

FELLOWS AND SCHOLARS

([1]Autumn quarter only; [2]winter quarter; [3]spring quarter; [4]summer quarter; [5]all four quarters.)

1929–30

FELLOWS

AMERICAN ASSOCIATION OF COLLEGIATE REGISTRARS FELLOW

Wyatt Walker Hale (Education).....Birmingham, Alabama
B.S., Birmingham-Southern, 1923, A.M., 1926

AMERICAN-GERMAN STUDENT EXCHANGE FELLOW

Hans Eduard Stille (Law).....Göttingen, Germany

AMERICAN SMELTING AND REFINING COMPANY FELLOW

Arthur Beers Johnson (Chemistry).....Palo Alto
A.B., Stanford, 1927, A.M., 1928

BUCKEL FELLOW IN EDUCATION AND PSYCHOLOGY

Helen Louise Campbell (Psychology).....Denver, Colorado
A.B., Denver, 1928, A.M., 1929

TEACHING FELLOW IN CHEMISTRY

Richard Andrew Ogg, Jr. (Chemistry).....Palo Alto
A.B., Stanford, 1929, A.M., 1930

CHARLES A. COFFIN FOUNDATION FELLOW

Edmund A. Evans (Electrical Engineering).....Margaretville, New York
E.E., Rensselaer Polytechnic, 1926

COMMONWEALTH FUND FELLOWS

Robert Henry Angus (Electrical Engineering).....Yorkshire, England
B.A., Cambridge, 1926; Engineer, Stanford, 1929
Walter Russell Crocker (History).....South Australia
Beatrice Mary White (English).....Seven Kings, England
B.A., London, 1923, M.A., 1926

CUBBERLEY FELLOWS IN SCHOOL ADMINISTRATION

Oscar Albin Anderson (Education).....Palo Alto
A.B., Cornell, 1921
Floyd Cleveland Wilcox (Education).....Battle Creek, Michigan
A.B., Kalamazoo, 1910; A.M., Columbia, 1921

DU PONT DE NEMOURS AND COMPANY FELLOW

Cecil Walter Humphreys (Chemistry).....Stockton
A.B., College of the Pacific, 1927; Engineer, Stanford, 1928

FOOD RESEARCH FELLOW

[3]Ernest Francis Penrose.....Menlo Park
B.A., Cambridge, 1925, M.A., 1930

EDWARD CURTIS FRANKLIN FELLOW

John Lemoyne Porter (Chemistry).....Alma, Nebraska
B.S., Princeton, 1926

HAMMOND LUMBER COMPANY FELLOW

Frank Carlyle Harmon (Chemistry).....San Jose
A.B., Stanford, 1927, Engineer, 1928, Ph.D., 1930

HIGH-VOLTAGE LABORATORY RESEARCH FELLOWS

Leland Hermon Brown (Electrical Engineering).....Palo Alto
A.B., Stanford, 1922, Engineer, 1924, Ph.D., 1930

[4]Edmund A. Evans (Electrical Engineering).....Margaretville, New York
E.E., Rensselaer Polytechnic, 1926

DONALD PORTER JACOBS FELLOW

William Crane Johnstone, Jr. (Political Science).....Denver, Colorado
A.B., Denver, 1924, A.M., 1927

GEORGE LOOMIS FELLOW IN AMERICAN LITERATURE

Hugh Cheney Baker (English).....Oakland
A.B., Stanford, 1928

McCALLUM RESEARCH FELLOW

[4]William Jackson McCallum (Chemistry).....Salinas
A.B., Stanford, 1930

NATIONAL RESEARCH COUNCIL FELLOWS

Donald Alexander Johansen (Botany).....Palo Alto
A.B., Stanford, 1925, A.M., 1926, Ph.D., 1928

William Gould Young (Chemistry).....Palo Alto
A.B., Colorado College, 1924, A.M., 1925; Ph.D., California Institute of Technology, 1929

SHELL DEVELOPMENT COMPANY FELLOW

George Edson Philip Smith, Jr. (Chemistry).....Stanford University
B.S., Arizona, 1926; Ph.D., Stanford, 1930

SOCIAL SCIENCE RESEARCH COUNCIL FELLOW

Keith Sward (Psychology).....Seattle, Washington
A.B., Minnesota, 1926, Ph.D., 1929

THOMAS WELTON STANFORD FELLOW IN PSYCHIC RESEARCH

John Edgar Coover.....Stanford University
A.B., Stanford, 1904, A.M., 1905, Ph.D., 1912

RUTH STERN FELLOW FOR STUDY OF DISEASES OF NERVOUS SYSTEM

Helen Hopkins Detrick.....San Francisco
A.B., California, 1920, A.M., 1921; M.D., Johns Hopkins, 1925

ROYALL VICTOR FELLOWS

[12]Edward Joseph Dwyer (Lower Division)..... Ansonia, Connecticut
[12]John Wynn Gillespie (Botany)..... Albany, Georgia
B.S., Georgia, 1923; A.M., Stanford, 1926, Ph.D., 1930
Charles Pray Knaebel (Mining Engineering)..... Washington, D.C.
B.S., Yale, 1929
David Lyall Patrick (English)..... Menlo Park
A.B., Iowa, 1922; A.M., Stanford, 1926
[13]Janet Louise Weston (Economics)..... Champaign, Illinois
A.B., Illinois, 1927
Edward Arthur White (History)..... Norwalk
A.B., Stanford, 1928, A.M., 1929
Dennistoun Wood, Jr. (Chemistry)..... Palo Alto
A.B., Stanford, 1927, A.M., 1928

UNIVERSITY FELLOWS

Rolf Ling Bolin (Zoölogy)..... Pacific Grove
A.B., Utah, 1925; A.M., Stanford, 1929
[234]Herbert Faulkner Copeland (Botany)..... Sacramento
A.B., Wisconsin, 1922; M.S., California, 1925
Madeleine Kathryn Doran (English)..... San Diego
A.B., Stanford, 1927; A.M., Iowa, 1928; Ph.D., Stanford, 1930
Edgar Wayne Galliher (Geology)..... San Jose
A.B., Stanford, 1929
[1]Helen Marilla Gibbs (English)..... Sioux Falls, S.D.
A.B., Sioux Falls, 1927
Lake S. Gill (Botany)..... Palo Alto
A.B., Stanford, 1923
Lovic Pierce Herrington (Psychology)..... Waynesboro, Georgia
A.B., Stanford, 1927, A.M., 1929, Ph.D., 1930
Donald George Marquis (Psychology)..... Bellingham, Washington
A.B., Stanford, 1928
Kate Pinsdorf (History)..... Matto Grosso, Brazil
A.B., Smith, 1928; A.M., Stanford, 1929
William A. Riddell (Chemistry)..... Vancouver, B.C.
A.B., Manitoba, 1925, B.S., 1926; M.S., Saskatchewan, 1928
Melville Sahyun (School of Biological Sciences)..... Santa Barbara
A.B., American University (Beirut, Syria), 1916; A.M., Stanford, 1929
Charles Alexander Sisson (English)..... Lawrence, Kansas
A.B., Kansas, 1923
Frank Bronson Tolman (Geology)..... Stanford University
A.B., Stanford, 1925

SCHOLARS

ALUMNI SCHOLARS

[1]William Vaux Artman (Lower Division)..... Long Beach
Harris Dixon Bogue (History)..... Burlingame
[12]R. Ludwig Frentrup (Economics)..... Berkeley
[12]Hamilton Russell Hedge (Lower Division)..... San Francisco
Walter Edwin Kite (Lower Division)..... Palo Alto
Eric C. W. Krenz (Economics-Accountancy)..... Stockton
A.B., Stanford, 1930
Henri John Laborde (Lower Division)..... San Francisco
[3]Carlos Antonio Monsalve (Lower Division)..... San Francisco
[12]Charles Joseph Prelsnik (Lower Division)..... San Francisco
Rudolph Alexander Rintala (Lower Division)..... San Francisco

ALUMNI JORDAN SCHOLARS

[23]Fred Adam Clark, Jr. (Medicine)....Redlands
A.B., Redlands, 1928
[3]William Lawrence Crutchett (Medicine)....Berkeley
A.B., California, 1927
Charles Wendell Leach (Medicine)....Los Angeles
A.B., Southern California, 1927
August Reich (Medicine)....Bakersfield
A.B., Stanford, 1928
William Merrill Silliphant (Medicine)....San Francisco
A.B., Southern California, 1926
Lee Mitsuyoshi Watanabe (Medicine)....Fresno
A.B., Stanford, 1927
[1]John Minor Wheelis, Jr. ....Hollywood
A.B., Stanford, 1928

ANGLO-CALIFORNIA TRUST COMPANY SCHOLAR

John Higby Peck (Economics)....San Francisco

ANONYMOUS SCHOLARS

Dick Arlynn Amyx (Classical Literature)....Niles
[2]Hugh Brazel Miller (Lower Division)....San Francisco
[2]Carlos Antonio Monsalve (Lower Division)....San Francisco

BENEVOLENT AND PROTECTIVE ORDER OF ELKS SCHOLAR

Henry Purinton Grace (Lower Division)....San Francisco

BERTHA HYDE BRALY SCHOLARS

[1]Mate Gunsolus (English)....Palo Alto
[12]Ruth Anita Patterson (Education)....Fresno
A.B., Stanford, 1930

CAP AND GOWN SCHOLARS

Martha Mannon (Pre-Medical)....Ukiah
Beth Tollan Pinkston (Pre-Medical)....Los Angeles

CIVIL ENGINEERING SCHOLAR

Kenneth Francis Mundt (Civil Engineering)....Folsom City
A.B., Stanford, 1929

E. C. CONVERSE SCHOLARS

[1]Helen Ralston Alison (Lower Division)....Claremont
Norman Beenfeldt (Lower Division)....San Francisco
Chester Wiggin Blackman (English)....Alhambra
A.B., Stanford, 1930
[23]Samuel L. Bradshaw (Lower Division)....San Francisco
Meribel Lillian Brown (Lower Division)....Gilroy
Theodore Mitchell DeMotte (School of Social Sciences—Journalism)....Ukiah
Ruth Edna Dietrich (Lower Division)....Cleveland, Ohio
[23]Karl Leonard Falk (Lower Division)....Piedmont
Adrienne Ann Hawkins (Lower Division)....Piedmont
David Ralph Malcolm, Jr. (Economics—Accountancy)....Van Nuys
A.B., Stanford, 1930

Jean Lilian Marquis (Psychology).....Bellingham, Washington
Frederick James Northway (School of Social Sciences).....Hughson
A.B., Stanford, 1930
Maurice Strathallan Power (History).....San Francisco
[23]Patricia Etheridge Rhodes (Philosophy).....Vallejo
A.B., Stanford, 1930

MABEL HYDE CORY SCHOLARS

Irene Lucile Way (History).....Petaluma
A.B., Stanford, 1929, A.M., 1930
[4]Dorothea Edith Wyatt (History).....San Francisco
A.B., Stanford, 1930

WILLIAM S. CRANSTON MEMORIAL SCHOLAR

Joseph Foster Ross (Lower Division).....Covina

GEORGE E. CROTHERS LAW SCHOLARS

[1]Frank Bernard Carroll (Law).....San Jose
A.B., Stanford, 1928
[23]John Barker Lauritzen (Law).....Salinas
A.B., Stanford, 1929

W. J. DICKEY SCHOLARS

Manson Fielding McCormick (School of Social Sciences).....Fresno
Stanley Johnson Madden (Lower Division).....Fresno

HENRY G. DODDS SCHOLAR

Gilbert Lawrence Carr (Economics).....Santa Monica

ORRIN W. DUNN SCHOLAR

Sidney Clarence Madden (Pre-Clinical).....San Jose
A.B., Stanford, 1930

MRS. CORDELIA ELKUS SCHOLAR

Orville Arnold Rohlf (Law).....Minneapolis, Minnesota
A.B., Minnesota, 1927; LL.B., Stanford, 1930

WALTER MASON FIELD SCHOLAR

Adelbert Nevin Culling (Economics—Accountancy).....Beverly Hills
A.B., Stanford, 1930

HIRAM C. FISK SCHOLAR

John Douglass Ferry (Lower Division).....Rogue River, Oregon

FLORENCE HECHT FRIES SCHOLAR

Alvin Joseph Cox, Jr. (Medicine).....San Francisco
A.B., Stanford, 1927

GERTRUDE GARDINER SCHOLAR

Barbara Lee Boggs (Lower Division).....Kelseyville

WILLIAM F. HERRIN SCHOLAR

Sturgis McKinney Riddle (Classical Literature).....Long Beach

BRODIE G. HIGLEY SCHOLAR

Howard Francis Spalding (Economics—Accountancy)....Medford, Oregon

T. J. HOOVER SCHOLAR

[12]Fred August Bianchi (Zoölogy).....Ventura

E. W. HOPKINS SCHOLARS

Lawrence Nathan Baker (Lower Division).....Bakersfield
Eve Adele McMannus (Lower Division).....Los Angeles
Clifford Charles Matlock (Lower Division).....Pasadena
Vernon Clifford Mickelson (English).....Sebastopol
Morris Francis Pool (Chemistry).....Gridley
Ernest Thomas Spiekerman (Lower Division).....The Dalles, Oregon

CHARLES ANDREWS HUSTON MEMORIAL SCHOLAR

Robert Arthur Hume (Law).....Brookings, South Dakota
A.B., Stanford, 1929

IRA S. LILLICK SCHOLAR

[3]John Paul Jennings (Law).....Portland, Oregon
A.B., Stanford, 1929

[12]Arthur Capps Miller (Law).....Arcadia
A.B., Stanford, 1928, J.D., 1930

MRS. IRA S. LILLICK SCHOLARS

[234]Norman William Applegarth (Law).....Palo Alto
A.B., Stanford, 1928

[1]Burton Daniel Wood (Law).....Stanford University
A.B., Michigan State Normal, 1922; A.M., Stanford, 1925, LL.B., 1930

ERNEST A. LOVE SCHOLAR

Frank Olin Copley (School of Letters).....Palo Alto
A.B., Stanford, 1930

MRS. McDOWELL ROBLE CLUB SCHOLAR

Margaret Katherine Pierce (English).....Los Angeles
A.B., Stanford, 1930

DOROTHY METZ SCHOLAR

Michael Innokentievich Tomilin (School of Social Sciences).....Russia

ROBERT S. AND FLORENCE MOORE SCHOLAR

Ward Wilson Woods (Lower Division).....Oakland

MAUD HUNTSBERGER PECK SCHOLAR

Jack Leroy Wilson (Economics—Accountancy).....Hollywood

P.E.O. SCHOLAR OF THE SANTA CLARA DISTRICT

Nanelia Siegfried (School of Letters).....Palo Alto
A.B., Stanford, 1930

FRANCIS PRICE SCHOLAR

[234]Frank Bernard Carroll (Law).....San Jose
A.B., Stanford, 1928

SAN FRANCISCO POLYTECHNIC HIGH SCHOOL SCHOLAR

[23]Harry N. M. Winton (History).....San Francisco

MARGARET SIDNEY SCHOLAR

Mary-Catherine Baldwin (Medicine).....Riverside
A.B., Stanford, 1927

LEON SLOSS SCHOLAR

Nilan Elmer Norris (Economics).....Palo Alto
A.B., Stanford, 1930

LELAND STANFORD JUNIOR MEMORIAL SCHOLAR

Arthur Kroeger (School of Social Sciences).....Fullerton

STANFORD MOTHERS' CLUB SCHOLAR

[23]Mary Benita Comings (Lower Division).....Ramona

STANFORD RESIDENT ALUMNAE SCHOLAR

Margaret Aileen Main (Economics).....San Diego

STANFORD WOMEN'S CLUB OF SAN FRANCISCO SCHOLAR

Alice Jane Nikirk (Lower Division).....San Francisco

JOHN MAXSON STILLMAN SCHOLAR

Humboldt Walter Leverenz (Chemistry).....Paso Robles
A.B., Stanford, 1930

PALMER WILKINSON TAYLOR SCHOLAR

[23]Philip Stanley Winnek (Chemistry).....San Diego

THETA SIGMA PHI SCHOLAR

[23]Helen Agatha Smith (History).....Portland, Oregon
A.B., Stanford, 1930

HARRY A. TRUE MEMORIAL SCHOLAR

Julian Devreau Barksdale (Geology).....Beaumont, Texas
A.B., Stanford, 1930

UNIVERSITY GRADUATE SCHOLARS

William Lyle Allred (Medicine).....Logan, Utah
A.B., Brigham Young, 1909; A.M., Stanford, 1925, Ph.D., 1926

Carroll Baugh Andrews (Medicine).....San Fernando
A.B., Stanford, 1928

Horace Albert Barker (School of Biological Sciences).....Palo Alto
A.B., Stanford, 1929

Ivan Clayton Barker (Economics).....Palo Alto
A.B., Washburn, 1925

William Carter Black (Medicine)....Palo Alto
A.B., Stanford, 1929
Robert Greenleaf Bramkamp (Medicine)....Banning
A.B., Stanford, 1926
Glenn Clark Brock (Chemistry)....Abilene, Texas
A.B., Simmons University, 1929
Fred Adam Clark, Jr. (Medicine)....Redlands
A.B., Redlands, 1928
William Frederick Cottrell (Political Science)....Burlingame
A.B., Occidental, 1925; A.M., Stanford, 1929, Ph.D., 1930
[3]Howard Brady Criswell, Jr. (School of Business)....Dallas, Texas
A.B., Stanford, 1927, M.B.A., 1930
Albert Clare Daniels (Medicine)....Pueblo, Colorado
A.B., Stanford, 1929
[23]Marion Overholser Drury (Civil Engineering)....Palo Alto
B.S., Otterbein, 1926
Benjamin Cushing Duniway (Law)....Northfield, Minnesota
A.B. Carleton, 1928
[3]Lee McCarrell Fallaw (English)....Greenville, South Carolina
A.B., Furman, 1929
Douglas Raymond Fuller (School of Business)....Stockton
A.B., Stanford, 1928, M.B.A., 1930
Milton Morris Hartman (Medicine)....San Francisco
A.B., Stanford, 1929
Henry Birnet Hovey (Psychology)....Salt Lake City, Utah
B.S., Utah, 1925; M.S., Oregon, 1927
Lot Duncan Howard (Medicine)....San Jose
A.B., Stanford, 1929
Robert Edward Hungate (School of Biological Sciences)....Cheney, Wash.
A.B., Stanford, 1929
[1]John Bingham Hurlbut (Law)....Los Angeles
A.B., California at Los Angeles, 1928; A.M., Stanford, 1929
Malcolm Nixon Jones (Medicine)....San Bernardino
A.B., Stanford, 1927
[4]Leonard Henry Kirkpatrick (French)....Taft
A.B., Stanford, 1926
[4]Raymond Fell Lillie (German)....Mayfield
A.B., Stanford, 1929
Robert Lincoln Loofbourow (Mining Engineering)....Berkeley
A.B., Stanford, 1929
Winifred Lovisa McClatchie (Chemistry)....Palo Alto
A.B., Stanford, 1929, A.M., 1930
Camille Mermod (Medicine)....Winters
A.B., Mills, 1922
Paul Maximovich Narbutovskih (Electrical Engineering)....San Francisco
A.B., Stanford, 1929
Ruth Harriet Parrish (Chemistry)....Great Barrington, Massachusetts
B.S., Massachusetts Agricultural, 1929; A.M., Stanford, 1930
[23]Frances Geraldine Sanford (Economics)....Burlingame
A.B., Stanford, 1929
[4]Charles Craven Scott (History)....Hong Kong, China
A.B., Stanford, 1927, A.M., 1929
Charles Edward Smith (Medicine)....Sacramento
A.B., Stanford, 1927
Ruth Henrietta Stocktill (French)....Oildale
A.B., Stanford, 1929, A.M., 1930
Andrew Emerson Swickard (Mechanical Engineering)....San Jose
A.B., Stanford, 1928, Engineer, 1930
Ruth Elizabeth Tinsley (Psychology)....Kansas City, Missouri
A.B., Stanford, 1929

Harold Chester Torbert (Medicine).....San Diego
A.B., Stanford, 1929

[5]Dorothy Troy (History).....Fullerton
A.B., Stanford, 1929, A.M., 1930

Fredricka Esther Wagner (German).....Seward, Nebraska
A.B., Nebraska, 1929; A.M., Stanford, 1930

[12]Harris Gaylord Warren (History).....Kouts, Indiana
B.S., Purdue, 1926; A.M., Stanford, 1930

[4]Isabel Stanley Watkins (Education).....Columbia, South Carolina
A.B., South Carolina College for Women; A.M., University of South Carolina, 1923

Phillip Hunt Wells (Medicine).....Pasadena
A.B., Stanford, 1929

Virgil Keeble Whitaker, Jr. (English).....Spokane, Washington
A.B., Stanford, 1929, A.M., 1930

Ruth Ellen Williams (English).....San Jose
A.B., San Jose State Teachers College, 1929

[3]Lyman Dwight Wooster (Zoölogy).....Hays, Kansas
A.B., Kansas State Teachers College, 1911; Ph.M., Wisconsin, 1919

HENRY WINDT JUNIOR MEMORIAL SCHOLAR

Henry Marshall Leicester (Chemistry).....San Francisco
A.B., Stanford, 1927, A.M., 1928, Ph.D., 1930

AWARDS AND PRIZES

COLONIAL DAMES SCHOLARSHIP

Winchester Hallock Heicher (History).....San Anselmo
A.B., Stanford, 1930

WILLIAM ROBERTS ECKART PRIZE IN MECHANICAL ENGINEERING

Kenneth Felton Ridley.....San Jose
A.B., Stanford, 1929, Engineer, 1930

LOWER DIVISION HONORS

(Awarded on the basis of high scholastic attainment to approximately one-tenth of the students completing Lower Division requirements at the end of the summer, autumn, winter, and spring quarters.)

Thomas Dickey Aitken, Jr.
Darrell Arlynn Amyx
Jewell Margaret Anderson
Lois Ruth Bailey
Patty Baker
Mary Margaret Ball
William Carroll Bark
Daniel Vale Bedford
James Edmund Bednar, Jr.
Orrin William Bisbee
Isador Wolf Botasof
Harriet Prescott Burroughs
Howard James Conn
Elizabeth Nicoll Davidson
Richard Wagner Dickenson
David Bonnell Dickey
Elizabeth Erlin
Bessie Harris Falk
Karl Leonard Falk
John Douglass Ferry
John Frederic Gange
Russell Blackwell Hart
Harry Leonard Hesselmeyer
Louise Redington Hewlett
Leslie Lee Howell
Mina Brunton Hughes
Elizabeth Jackson
Louise Jahant
Arthur Johiel Katzev
Elisabeth Larsh
Mary Sandilands Leib
Dwight Moulton Lemmon
Marian Winsor Lewis
Aline Mathilda Lissner
Harry Lee Logan
Stanley Johnson Madden
Jean Eleanor Magnus
Dorothy Manning
Martha Mannon
Jean Lilian Marquis
Clifford Charles Matlock
Abe Irving Mellinkoff
Hugo Bardill Meyer
Robert Wiepking Meyer
Ruth Lenore Miner
Olive Mott
Walter Albrecht Radius, Jr.
Lillian Schuck
John William Skinner
Robert Lee Smith, Jr.
Francis Holly Sumner
Louise Swail Taft
Isabell Warren
Elizabeth Dearing West
Cameron Withgot Wolfe
Ward Wilson Woods
Alvah Bruce Wright
Albert Fairfield Zipf

STUDENTS

Name; home residence; major subject; status; University residence; postoffice. The capital letter following residence address indicates location of street (P = Palo Alto, M = Mayfield, MP = Menlo Park, SJ = San Jose, SF = San Francisco, etc.); where capital letter is omitted the residence in all cases is *Stanford University*. The small letter following the capital indicates the postoffice address; where small letter is omitted the postoffice in all cases is *Stanford University*. The numbers (or letters) in italics after the University address are Stanford University postoffice box numbers (or box letters).

Status—gr., graduate student; sp., special student. The figures after major subject indicate, first, the number of units of university work completed (and counting toward the 180 units required for graduation), no account being taken of "deferred," "incomplete," or "conditioned" work; second, the number of grade points in excess of, or falling short of, the number of registered units ("+20," in excess; "−20," deficient). Where two numbers (separated by a point) precede the plus or minus sign, the first indicates the number of units of advanced or other credit to which the grade-point system does not apply; thus 45.50+10 means that the total credit is 95 units, but that the + 10 grade points are based upon the 50 units only.

The superior figure [1] indicates registration for the autumn quarter only; [2] indicates winter quarter only; [3] indicates spring quarter only; [4] indicates summer quarter only; [12] indicates autumn and winter quarters only; [23] indicates winter and spring quarters only; [13] indicates autumn and spring quarters only; [5] indicates autumn, winter, spring, and summer quarters.

The asterisk (*) indicates registered under Independent Study Plan, credit deferred; the double dagger (‡) indicates unadjusted standing from other colleges and universities. (Phys. = Physics; Phyl. = Physiology.)

Aaron, Robert Hart	San Francisco	LD 92+41	135 Branner-*1076*
Abbott, Francese Vanelia	Compton	Fr. 57·84+123	200 Roble-*1694*
Abbott, Mary Elizabeth	Oak Park, Ill.	Soc.S. 95·44+57	280 Roble-*2733*
[4]Abele, Ruth Frances A.B., Oregon, 1929	Portland, Ore.	Educ. gr.	Roble
Abers, Jacob A.B., California at Los Angeles, 1927; A. M., Stanford, 1930	Los Angeles	Engl. gr.	845 Waverley, P-p
[3]Abrahamson, Roy Miller B.S., South Dakota State College, 1929	Midland, S.D.	Chem. gr.	425 Encina
Abrams, Margaret	Stanford Univ.	LD 88+37	653 Cabrillo
[2]Abramson, J. Hilty	Los Angeles	S.Engr. 5·159–17	Delta Upsilon
[4]Ackerman, Lloyd S., Jr.	San Francisco	Econ. ‡	301 W. Bellevue, SM-sm
Adams, Ann Louise	Santa Cruz	LD 46+70	260 Roble-*2292*
[4]Adams, Arthur R.	Los Angeles	LD ‡ 15+15	237 Toyon
[4]Adams, Bertha Dillow A.B., Western Reserve, 1900	Santa Cruz	Cl.Lit. gr.	1832 Cowper, P-*2292*
[5]Adams, Bradford Clarendon A.B., Southern California, 1928	Los Angeles	Geol. gr.	528 Encina
Adams, Clement Earl A.B., San Jose State Teachers College, 1926	Palo Alto	Econ. gr.	255 Homer, P-Box283, p
[1]Adams, Elmo W. A.B., Stanford, 1930	Las Vegas, Nevada	Geol. 123·61+57	520 Alvarado
Adams, Francis S.	Anaconda, Mont.	LD 7·91+31	128 Kingsley, P-p
Adams, Frank Pollard	Piedmont	Econ. 132+59	DeltaTauDelta-*1363*
Adams, George Mellen	Berwyn, Ill.	LD 51–15	246 Encina-*1697*
[4]Adams, Harlen Martin A.B., Brigham Young, 1925	Provo, Utah	Engl. gr.	255 Toyon
Adams, Henry Jackson	La Mesa	Econ. 144+9	Zeta Psi-*B*
Adams, Herkimer Ernest A.B., Stanford, 1930	San Francisco	Econ. 5·183+24	Theta Xi
Adams, Jane Elizabeth A.B., Stanford, 1924, A.M., 1925	San Diego	Educ. gr.	334 Cowper, P-*1057*

Adams, J. Martin — Klamath Falls, Ore. — Med. gr. — 2201 California, SF-sf
A.B., Stanford, 1926
[4]Adams, John Payson — Oakland — S.Biol. 13·155+10 — 560 Salvatierra
Adams, Lewis Nelson — Aberdeen, Wash. — Chem. 180+65 — Theta Chi-*1383*
A.B., Stanford, 1930
[4]Adams, Lucy Margaret — Elgin, Ore. — LD ‡ — 625 Hamilton, P-p
[12]Adams, Richard Laban — Berkeley — Econ. gr. — *2747* Haste, B-b
B.S., Massachusetts Agricultural, 1905
Addlestone, Howard Fred — San Francisco — Engl.-P.Sp.79·56+25 — 930Wvly,P-p
Adelsbach, Cleo Garland — Visalia — Math. gr. — *233* Union-*137*
A.B., Stanford, 1928
Adkins, Robert Morris — Palo Alto — LD sp. 7+3 — 1027Bryant,P-Bx932,p
Adler, Richard Henry — Los Angeles — LD 91+91 — 205 Branner-*1678*
Adler, William Milton — Los Angeles — S.Engr.6·177+35 — 207Branner-*1678*
A.B., Stanford, 1930
Afflerbaugh, J. Kenneth — Pomona — LD 45–*2* — 201 Encina-*1783*
[1]Aganad, Andres Rabara — Cabugao, P.I. — Educ. 90· — 711Cowper,P-Box142,p
[4]Ahnquist, Martha Edith — Tacoma, Wash. — Educ. gr. — 336 Homer, P-p
B.E., Washington, 1921
[12]Aiken, Douglas Sedgwick — Palo Alto — Econ.180+62 — AlphaTauOmg.-*1384*
A.B., Stanford, 1930
Aitken, Thomas Dickey — San Francisco — LD 91+139 — 136 Branner-*1671*
[1]Akama, Thomas T. — Fukushima, Japan — Bact. 105·75+8 — Japanese Club-*598*
[4]Akey, Donald K. — Gilroy — Math. gr. — 216 Union
A.B., Stanford, 1926
Akey, Robert Ellsworth — Pendleton, Ore. — LD 31–16 — 31 Encina-*914*
Albertson, H. Kendall — Los Angeles — Pre-Med. 141+28 — Zeta Psi-*B*
Albertson, Marcellus O. — Los Angeles — LD 102+16 — Zeta Psi-*B*
Albertson, Walter Edward — Healdsburg — Phys. gr. — 315 Union
A.B., Stanford, 1930
Albright, Preston Bailey — Colo.Sprgs,Colo. — Hist. gr. — 542 Encina-*976*
A.B., Colorado College, 1928
[4]Albright, Robert Edwin — Dillon, Mont. — Hist. gr. — 314 Toyon-*1299*
A.B., Nebraska Wesleyan, 1918; A.M., Colorado, 1925
Alden, Elizabeth — Palo Alto — Soc.S. 131+77 — *427* Embredro, P-p
[4]Alden, John Gustavus — Palo Alto — LD — *427* Embarcadero, P-p
Aldrich, Helen Louise — Inspiration, Ariz. — Math. 94·44+88 — *278* Roble-*2413*
Aldwell, Eileen — Atherton — Cl.Lit. 42·96+86 — Pi Beta Phi-*1918*
Aldwell, William Basil — Atherton — Germ. 180+101 — 107 Sequoia-*1153*
A.B., Stanford, 1930
Aleck, Joseph Francis, Jr. — San Francisco — S.Bus. gr. — *234* Union-*2114*
A.B., Stanford, 1929
[5]Alexander, Don Mynier — Palo Alto — Soc.S. 154+13 — 1319 Bryant, P-p
Alison, Helen Ralston — Claremont — LD 45–13 — 340 Roble-*544*
Allan, Robert Myers — Salida, Colo. — LD 91+113 — 115 Branner-*2441*
Allen, Barbara — Portland, Ore. — LD 85+16 — Kappa Kappa Gamma
[4]Allen, Carroll Fay — Boise, Idaho — Chem. gr. — 521 Lasuen-*1305*
A.B., Idaho, 1930
[5]Allen, Charles Sumner — San Jose — Econ. 88·41+14 — Del.TauDel.-*1363*
Allen, Craig Talmage, Jr. — Phoenix, Ariz. — Econ. 90·91+5 — 561 Encina-*899*
A.B., Stanford, 1930
Allen, Edward — Santa Maria — Chem. gr. — 450 Encina-*1402*
A.B., Stanford, 1929, A.M., 1930
[12]Allen, Garland T. — Palo Alto — S.Bus. gr. — 311 Union-*2261*
A.B., Stanford, 1928
Allen, Glenn Philip — Orange — LD 44+10 — 352 Encina-*1823*
Allen, Harold K. — Huntington Park — LD 83+26 — Phi Delta Theta

Allen, Harry Julian — Los Angeles — LD 96+46 — 214 Sequoia-*2053*
Allen, J. Knight — Provo, Utah — S.Bus. gr. — 332 Homer, P-p
B.S., Brigham Young, 1926; M.B.A., Stanford, 1930
[12]Allen, John French — Palo Alto — LD 18–19 — 1134 Emerson, P-*2551*
Allen, John P. — Portland, Ore. — LD 44+39 — 129 Encina-*2023*
Allen, Mark Knight — Provo, Utah — Psych. gr. — 758 Waverley, P-p
A.B., Brigham Young, 1926
[5]Allen, Phillip N. — San Mateo — Econ. 90·46+35 — 222 7th, SM-sm
Allen, Ralph Woodford — Seattle, Wash. — Pol.S. 130+135 — Delta Kappa Eps.
[2]Allen, Shannon Collier — Palo Alto — LD 70·13+9 — 1134 Emerson, P-p
Allen, Tex Bollman — Spokane, Wash. — LD 50+17 — 302 Encina-*2612*
Allen, William Atwal — San Bernardino — S.Engr. 39·99+46 — Delta Chi-*1304*
Alley, Stuart Myron — Suisun — Span. 5·176+40 — Kappa Alpha
A.B., Stanford, 1930
Allred, W. Lyle — Logan, Utah — Med. gr. — 2250 Bay, SF-sf
A.B., Brigham Young, 1909; A.M., Stanford, 1925, Ph.D., 1926
Almanzán, Roberto E. — Los Angeles — S.Engr.2·108+4 746 — SntaYnez-*2176*
Ambrosius, John Merle — Rockford, Ill. — Econ. 96·84+5 — Delta Chi-*1304*
A.B., Stanford, 1930
[13]Ament, Roger W. — Beverly Hills — LD 114+72 — 434 Encina-*1543*
[4]Ames, Fannie Orlina — Willows — Educ. gr. — 660 Salvatierra
A.B., Colorado, 1913
[4]Ammons, Thelma Lee — Delano — Educ. ‡ 30+20 — 263 Roble
[5]Amsden, Maurice Ralph — San Jose — Chem. gr. — 371 E. San Sdr, SJ-sj
A.B., Stanford, 1930
Amundsen, ElliottMarshall — Seattle,Wash. — Law gr. — 209 Union-*978*
A.B., Washington, 1929
[4]Amy, John H. — Silver City, N.M. — Educ. gr. — Stanford Univ.
A.B., Wesleyan, 1914
[5]Amyx, Dick Arlynn — Niles — Cl.Lit. 22·143+241 — 406 Sequoia-*635*
[4]Andersen, Marie — Selma — Hist. ‡ 14+11 — 160 Roble
Anderson, Ben Taylor — Oakland — Chem. 139+60 — 210 Branner-*883*
[12]Anderson, Clark Wyllie — Fresno — S.Bus. gr. — Chi Psi
A.B., California, 1929
Anderson, Donald E. — Fresno — Econ. 180+21 — Phi Kappa Psi
A.B., Stanford, 1930
Anderson, Donald Malcolm — Irvington — S.Engr. 135·83+13 — 528Alvrdo-*1132*
A.B., Stanford, 1930
Anderson, Edward Gerald — Santa Cruz — Econ. 180+12 — 300 Toyon-*1855*
A.B., Stanford, 1930
[1]Anderson, George Kvelve, Jr. — Hollywood — Econ. 5·178+6 — 122 Toyon-*2693*
[5]Anderson, H. Dewey — Cupertino — Educ. gr. — Cupertino-Rt.A,Bx186,c
A.B., Stanford, 1929, A.M., 1930
Anderson, Harry Davey — Weed — LD 72+42 — Kappa Sigma-*1326*
Anderson, Jewell Margaret — Centerville — LD 93+101 — Gamma Phi Beta-*1337*
[5]Anderson, Oscar Albin — Palo Alto — Educ. gr. — PA-Box 268A, Rt. 1, p
A.B., Cornell College, 1921
[4]Anderson, Stanley — Kingsburg — LD — 131 Toyon
Anderson, Virgil A. — Menlo Park — Engl.-P.Sp.gr. — 146Prtrdg,MP-mp
A.B., Willamette, 1923
[1]Andreini, George Leslie — Redwood City — Hist.75·105+15 — 426Webster,RC-rc
A.B., Stanford, 1930
[4]Andres, Demetrio M. — Marikina, P.I. — Engl. gr. — 305 Hamilton, P-p
B.S., Philippines, 1926
[3]Andrews, Axel William — Mayfield — S.Engr.90·15+0 — 545Cmbrdg..M-m
Andrews, Carroll Baugh — San Fernando — Med. gr. — 1931 Webster, SF-sf
A.B., Stanford, 1928
Andrews, Mildred McIntyre — Corona — LD 48+36 — 258 Roble-*2754*

Andrews, Russell Phillips Palo Alto Engl. gr. 651 Gilman, P-p
A.B., Stanford, 1928
[12]Angel, Arthur Desko Pomona Pol.S. 5·176+138 234 Branner
A.B., Stanford, 1930
Angus, Robert Henry Yorks, England E.E. gr. 5 Union-*1094*
A.B., Cambridge, 1926; Engineer, Stanford, 1929
[5]Anixter, Simon David San Francisco Law gr. 759 Middlefield, P-p
A.B., California, 1927
[1]Annin, Clarence Russell Wasco Educ. gr. Menlo School, MP-mp
A.B., Santa Barbara State Teachers College, 1928
[13]Anthony, Berkeley F. San Francisco LD 70+1 Phi Kappa Psi
[1]Antonell, Emil Brackett Phoenix, Ariz. Pre-Med. 11·157+25 215Ecna-*1326*
[5]Applegarth, Norman William Palo Alto Law gr. 435 Hamilton, P-p
A.B., Stanford, 1928
[4]Applegate, Jean M. Klamath Falls, Ore. Engl. gr. 259 Roble
A.B., California, 1918
Applegate, Marion Virginia Miami, Okla. Soc.S. 90·48+29 164 Roble-*2643*
[12]Appleton, Lawrence Alfred San Jose Econ.90·91+75 1680Alameda,SJ-sj
A.B., Stanford, 1930
Arbuckle, Ernest Comings Santa Monica LD 43+17 317 Encina-*1693*
Arditto, James Joseph Amador City Econ.91·44+13 349 Hamilton, P-p
[5]Arkush, J. Robert Palo Alto Law gr. 1095 Ashby, P-p
A.B., California at Los Angeles, 1929
[5]Armes, Jean Marie San Francisco Engl. 140+6 Alpha Phi-*1387*
[12]Armstrong, Edward Dow Palo Alto Chem. 52·155+5 426 Encina-*1855*
A.B., Stanford, 1930
Armstrong, Richard Townsend Palo Alto LD 44–6 190 Southwood, P-p
Armstrong, William Martin Duncan,Okla. S.Engr. 90·90+16 205Emerson,P-p
A.B., Stanford, 1930
[5]Arthur, Albert Keyston San Mateo LD 78+40 205 Sequoia
Arthur, James Henry Anaheim LD 86+94 1027 Waverley, P-*837*
[1]Artman, Corwin Walter Los Angeles LD 123+65 Phi Kappa Psi
[13]Artman, William Vaux Long Beach LD 36+7 42 Encina-*1223*
[5]Artz, Louise Alice Tustin Hist. 142+179 Delta Gamma-*1366*
[1]Asbury, Francis, Jr. Long Beach LD 92+20 436 Encina-*2114*
[4]Aseltine, John San Diego Educ. gr. 241 Princeton, M-m
A.B., Stanford, 1924, A.M., 1925
[4]Ashby, Jack Lane Oakland LD 558 Lasuen
Ashby, Nanette Margretta Tucson, Ariz. Engl. gr. 660 Salvatierra-*2654*
A.B., Grinnell, 1920; A.M., Arizona, 1927
Ashen, Ruth Geraldine Sacramento Engl.-P.Sp.90·43+58 367Rble-*2602*
[34]Ashley, George Munn Palo Alto LD sp. 10–1 359 Hawthorne, P-p
Asmann, John Cincinnati, Ohio Econ. 133+86 Theta Chi-*1383*
[5]*Asquith, Richard Lionel San Francisco Hist.17·91+102 AlphaSig.Phi-*1357*
[1]Atcheson, Douglas Redwood City LD 58+5 Redwood City-*103*
Atkinson, Ray Cook San Francisco Med. gr. 2180 Washington, SF-sf
A.B., Stanford, 1927
Atkinson, Robert Standsbury Reno, Nev. LD 44·41–6 231 Encina-*1976*
[1]Atkisson, E. James Sanger LD 46+13 375 Leland, M-*1906*
Atlas, Irving San Jose LD 93+51 66 Atlas, SJ-sj

Attwood, Cyril John Centerville Med. gr. Centerville-Box 183, c
A.B., Stanford, 1927
[4]Atwill, John R. San Gabriel Law gr. 333 Union-*2276*
A.B., Stanford, 1928
[4]Atwood, Alice Goldthwaite Pasadena Educ. gr. Kingscote
A.B., Pomona, 1925

[4]Atwood, Elmer Bagby	Santa Monica	Engl. gr.	235 Union
A.B., Simmons, 1926			
Austin, Frederick P.,Jr.	Chandler, Ariz.	Econ.90-48+15	327Emrson,P-*2139*
Austin, Lloyd Fisher	La Jolla	LD 40–*22*	124 Encina-*953*
Austin, Spencer Trageser	Santa Monica	Econ. 132+31	228 Branner-*2134*
[4]Austin, Wilfred Gordon	Chandler, Ariz.	Educ. gr.	Beta Theta Pi-*1335*
A.B., Arizona, 1926			
[134]Avary, Edwin Davis	San Francisco	LD 77+27	Delta Tau Delta-*1363*
[1]Avery, Curtis Edmund	Claremont	Engl. gr.	524 Homer, P-*881*
A.B., Pomona, 1925; A.M., Yale, 1928			
Avery, Howard M.	Grossmont	Econ. 90-33–*2*	105 Sequoia
Avery, Kenneth Gilcrest	Pasadena	LD 86+1	Alpha Sigma Phi-*1841*
[12]Avery, Paul Walker, Jr.	Palo Alto	Chem. 107–12	151 Embredro, P-p
Avila, Pablo	Costa Mesa	Fr. 108+99	211 Sequoia
Ayars, Robert Needham	Glendale	S.Engr. 182+179	134 Toyon-*1947*
A.B., Stanford, 1930			
Ayer, Robert Warren	Los Gatos	S.Engr. 90-30+46	106Sequoia-*1090*
[1]Ayers, Dallas Waldo	Modesto	S.Engr. 90-87–*7*	205 Sequoia
[3]Ayres, Elliott H.	Palo Alto	Econ. 10-170+108	826 Homer, P-p
A.B., Stanford, 1930			
Azevedo, Joseph Leo	Alameda	Med. gr.	1504 Alameda, A-a
A.B., Stanford, 1929			
[1]Babcock, Lawrence Twyman	Los Angeles	Law 180+15	Beta Theta Pi-*1335*
A.B., Stanford, 1930			
Babson, Ned	Portland, Ore.	S.Engr. 196+234	Theta Xi
A.B., Stanford, 1930			
Badcon, James Robert	Stanford Univ.	LD 37+20	233 Encina-*1095*
[12]Badger, Carlos Jenkins	Salt Lake City,U.	Law gr.	344 Kipling, P-p
Graduate, U.S. Naval Academy, 1922			
Badger, Edith Anne	Long Beach	Hist. 90-46+47	106 Roble-*1676*
[2]Baer, Leonard	San Francisco	LD	410 Encina-*2208*
Bagley, Phillip Haber	Fresno	Econ. 151+21	419 Encina-*604*
Bailey, Babette Frances	Honolulu, T.H.	Psych. gr.	502 Univ., P-*1337*
A.B., Stanford, 1929			
Bailey, Barbara	Minneapolis, Minn.	Soc.S. 94-49+59	344 Roble-*2374*
Bailey, Edward Nolta	Elizabethtown, Ky.	Econ. 134-47+44	256 Kellogg, P-p
A.B., Stanford, 1930			
Bailey, F. Homer	Canutillo, Texas	LD 45+58	241 Hawthorne, P-p
[2]Bailey, Helen Elizabeth	Hollywood	Engl. 22-123+101	219 Roble-*1327*
Bailey, Lois Ruth	Palo Alto	LD 91+142	168 Waverley, P-p
Bailey, William Russell	Riverside	Econ.90-47+32	44EncnaAv.,P-*1351*
[4]Baily, Frederick Lang	Los Angeles	LD	119 Toyon
[13]Baily, Joseph	Spokane, Wash.	Soc.S.-Jn.127+100	421Kipling,P-p
[12]Bain, William A.	San Mateo	Pre-Med.‡16–14	35 9th, SM-*722*
[23]Baird, Robert E.	Coalinga	LD 90+69	205 Emerson, P-*122*
Bairos, Cyril Anthony	Pleasanton	E.E. gr.	335 Union-*1695*
A.B., Stanford, 1929			
Baker, C. Everett	Long Beach	Hist. 132+30	206 Sequoia-*1966*
Baker, Harriet Eleanor	Berkeley	LD 49+44	146 Roble-*2503*
[5]Baker, Hugh Cheney	Oakland	Engl. gr.	318 Union-*135*
A.B., Stanford, 1928			
Baker, John Stavely	Lindsay	M.E. gr.	612 Palo Alto, P-*2821*
A.B., Whittier, 1929			
Baker, L. Philip	Watsonville	LD 91+76	Zeta Psi-*B*
Baker, Lawrence Nathan	Bakersfield	LD 45-49+77	245 Encina-*1755*
[4]Baker, Lillian Dale	San Jose	Educ. gr.	97 S. 6th, SJ-sj
A.B., San Jose State Teachers College, 1927			

Baker, Marie Katherine	Huntington Park	LD 45+49	333 Roble-*2254*
Baker, Patty	Winters	LD 43·46+47	315 Roble-*1903*
Baker, Ray Frank A.B., Stanford, 1928, J.D., 1930	Osage, Iowa	Law gr.	415 Encina-*1357*
[4]Baker, Robert Holbrook	Concord, N.H.	LD	215 Toyon-*1334*
Baker, Robert Nesbit A.B., California at Los Angeles, 1929	Venice	Law gr.	450 El Escarpado-*2135*
Balch, Mary Frances A.B., Stanford, 1930	Los Gatos	Geol. 92·94+67	Delta Gamma-*1366*
Balcomb, Jean Bart A.B., Stanford, 1929, Engineer, 1930	Palo Alto	M.E. gr.	335 Everett, P-p
[4]Baldwin, Ernest J. B.S., Kansas, 1915; M.S., 1917	Pocatello, Idaho	Chem. gr.	1455 Cambridge, M-m
[25]Baldwin, Harriet Irene	Chandler, Ariz.	LD 25+3	178 Roble-*2293*
Baldwin, Mary-Catherine A.B., Stanford, 1927	Riverside	Med. gr.	3099 Washington, SF-sf
Balfour, Barbara	S. Pasadena	LD 46+36	110 Roble-*2402*
[4]Ball, Calvin Arland A.B., Chico State Teachers College, 1929	Marysville	Educ. gr.	151 Cowper, P-p
[1]Ball, George Francis A.B., Stanford, 1930	Fresno	Econ. 29·155+90	308 Branner-*2496*
[5]Ball, M. Margaret	Santa Monica	Pol.S. 48·92+136	Chi Omega
[1]Ballagh, Ehrnest Ellsworth, Jr.	Maricopa	Econ. 96–23	541 Homer, P-p
Ballard, Eaton Walling	Seattle, Wash.	LD 75+70	512 Governor's-*2143*
Ballin, Richard M. A.B., Stanford, 1930	Los Gatos	Hist. 90·92+7	207 Sequoia-*2663*
[4]Ballin, Robert Louis	Los Gatos	LD	204 Union-*2663*
[12]Bancroft, Anne J. A.B., Stanford, 1930	Walnut Creek	Hist. 180+14	325 Roble-*2676*
Bancroft, Hubert Howe	San Diego	LD 64–18	Kappa Sigma-*1326*
Bancroft, Lucy Eldred	Walnut Creek	Engl. 39·97+41	Alpha Phi-*1387*
Bancroft, Martin F. A.B., Stanford, 1929	Walnut Creek	Med. gr.	2321 Sacramento, SF-sf
Bannard, Louis Otto	Los Angeles	LD 94+67	108 Branner-*814*
Barbee, Elizabeth Lee	Long Beach	Hist. 46·77+27	Gam.PhiBeta-*1337*
[12]Barber, William Bradbury A.B., California, 1927	Berkeley	S.Bus. gr.	Union-*993*
[2]Barbour, Benjamin Rogers	Mill Valley	LD*	30 Encina-*980*
Barbour, Jack Meux A.B., Stanford, 1930	Fresno	Econ.180+12	Delta Kappa Epsilon
[5]Bardin, Jim G.	Salinas	Econ. 157+74	PhiSigmaKappa-*538*
[4]Bardin, Oliver Chaney	Salinas	LD	306 Union
Bardin, William Joseph	Salinas	S.Engr. 166+242	PhiSig.Kap.-*538*
Bark, William Carroll	Tacoma, Wash.	Hist.140+195	Sig. Alpha Eps.-*1305*
Barker, Edna Elizabeth	San Francisco	LD 77+63	223 Roble-*2045*
Barker, Gertrude Dixy A.B., Stanford, 1930	San Francisco	Bact. 90·90+68	1515 Bdwy, SF-sf
[34]Barker, Guy, Jr.	Palo Alto	Phil. 89+85	708 Escobita, P-p
[5]Barker, Horace Albert A.B., Stanford, 1929	Palo Alto	S.Biol. gr.	Pacific Grove-pg
Barker, Harry Edwin A.B., Stanford, 1930	Ventura	Zoöl.-Med. 229+154	403Squa-*1180*
[5]Barker, Ivan Clayton A.B., Washburn, 1925	Palo Alto	Econ. gr.	115 Alma, P-p
[4]Barker, Louise Chandler A.B., Smith, 1924	Arlington, Mass.	Psych. gr.	337 Roble
Barker, Ralph Randolph	Newport, R.I.	LD 45+0	45 Encina-*507*

[5]Barker, Wallace Woodward — Palo Alto — Fr. gr. — 524 Middlefield, P-p
A.B., Harvard, 1905
Barks, William George — Monrovia — S.Engr. 146+25 — Phi Delta Theta
Barksdale, Junan D. — Beaumont, Texas — Geol. gr. — 309 Sequoia-*2311*
A.B., Stanford, 1930
Barmore, Mark Alfred — Whittier — Chem. gr. — 215 Union-*1262*
A.B., Whittier, 1927; A.M., Stanford, 1929
[12]Barnaby, Joseph Thomas — Seattle, Wash. — Zoöl. gr. — 340 Embarcadero, P-p
B.S., Washington, 1929
[4]Barnard, Beatrice — Palo Alto — LD — 193 Waverley, P-p
[23]Barnard, Donald — Palo Alto — LD 29+5 — 1189 Hamilton, P-p
[12]Barnard, Lynn Leander — Los Angeles — Econ.-Acct. 18-123–23 — 425 Encina
Barnes, Paul Stanton — New York, N.Y. — Econ. 181+28 — Theta Chi-*1383*
A.B., Stanford, 1930
Barnett, Jack William — Pasadena — Econ. 88-48+31 — Menlo Park-*952*
[4]Baroosnian, Stephen Martin — Auburn — Hist. gr. — 521 Lasuen
A.B., Stanford, 1921, A.M., 1930
Barr, James Adam — Berkeley — Pre-Clin. 206+240 — 215 Toyon-*2223*
A.B., Stanford, 1930
Barrett, Betty — Palo Alto — LD 43–11 — 246 Roble-*1516*
[1]Barrett, Dallas Leslie — Long Beach — Law gr. — 1832 Cowper, P-p
A.B., Stanford, 1923, J.D., 1930
Barrett, Doris — Palo Alto — LD 39–14 — 248 Roble-*1516*
Barrett, Steven Lewis — San Francisco — LD 46+55 — 351 Encina-*1441*
Barry, Edwin Fry — Marshall, Texas — M.E. gr. — 750 Forest, P-p
B.S., Alabama Polytechnic, 1914
Barry, John Richard — Petaluma — Econ. 90-47+5 — 449 Encina
[34]Barry, Marie Louise — Marshall, Texas — Engl. gr. — 750 Forest, P-p
A.B., Texas, 1926
Barstow, Alfred Gary — Alhambra — Pol.S. 135+32 — 659 Salvatierra
[3]Bartholomew, Paul Stanley — Sycamore, O. — S.Biol. gr. — Stanford Univ.
A.B., Heidelberg, 1928
Bartlett, Aurelius Twombley — St.Louis, Mo. — LD 87+16 — Alpha Delta Phi-*J*
[4]Bartlett, John Cannon — Groveland — Psych. 90- — 521 Lasuen
[4]Bartlett, John Carleton — Berkeley — LD 85–1 — Pacific Grove-pg
Bartlett, Leonard Irving — Modesto — Soc.S.-Jn.90-92+41 — 305Brnr-*2336*
A.B., Stanford, 1930
Bartlett, Lowell Edgar — Ontario — Law gr. — 407 Encina
A.B., Stanford, 1929
[23]Bartlett, Muriel de Fontenay — Berkeley — Engl.15-113+51 — DeltaGamma-*1366*
[1]Bartlett, Z. Wilson, Jr. — Marlin, Texas — Min. gr. — 305 Hamilton, P-*2551*
A.B., Texas Agricultural and Mechanical College, 1929
[12]Barton, Lois Elaine — San Jose — Chem. gr. — 310 S. 10th, SJ-sj
A.B., San Jose State Teachers College, 1928; A.M., Stanford, 1930
Barton, Max Wilfred — Vallejo — Econ. 21-144+32 — 115 Toyon-*618*
Bartonek, Cloyd O. — Ogden, Utah — S.Engr.91-51+40 — 851 Lyt,P-B342,p
Baskerville, Charles Dalton — Los Angeles — Econ.62-121+46 — KappaSigma-*1326*
A.B., Stanford, 1930
[5]Bass, Thomas J., Jr. — San Francisco — Math. gr. — 533 Encina-*1557*
A.B., Stanford, 1930
[1]Bateman, Mary — Salt Lake City, Utah — S.Bus. gr. — Kingscote
A.B., Stanford, 1924
Bates, Francis, Jr. — Los Angeles — LD 90+39 — Phi Delta Theta
Bates, W. Bernarr — Santa Monica — LD 87+87 — 225 Toyon-*2301*
Bates, William Frederick — Los Angeles — LD 47+21 — 205 Encina-*2034*
Batman, LaVern R. — Grants Pass, Ore. — LD 88+45 — 404 Sequoia-*2106*
Bauer, Karl Hermann — Elmhurst, Ill. — Germ. 65-82+30 — Menlo Park

[4]Baum, Edgar Raymond Ph.B., Mount St. Charles, 1930	Helena, Mont.	Law gr.	305 Union
[5]Baumeister, Bernhardt E. A.B., San Jose State Teachers College, 1929	San Francisco	Educ. gr.	1121 Bryant, P-p
[5]Baumgarten, Robert Eric	Los Angeles	Econ. 123+89	Alpha Delta Phi-*J*
[4]Baxter, Golden Stephen B.S., Agricultural College of Utah, 1929	Panguitch, Utah	Pol.S. gr.	212 Fulton, P-p
Baxter, Philip Norman A.B., Stanford, 1925	Stockton	Med. gr.	730 Santa Maria-*1238*
Baxter, Robert Harold	Los Altos	LD 52+12	Los Altos-la
Bayer, Nicholas Serge	Palo Alto	S.Engr. 149–7	313 Everett, P-p
[4]Bays, Willamette A.B., Maryville, 1912	Salinas	Educ. gr.	379 Roble
[124]Beach, Allen	Stanford Univ.	Educ. 77·92+60	521Salvatierra-*128*
[1]Beall, Jesse Rankin A.B., Johns Hopkins, 1928	Mayesville, S.C.	S.Bus. gr.	450 Encina
[1]Bean, Albert Victor A.B., Stanford, 1930	San Jose	Econ. 105·78+4	1021 Univ., SJ-sj
[134]Beard, John Winter	Palo Alto	Hist. 144–10	510 Univ., P-p
Beard, Rodney Rau	Berkeley	LD 91+62	105 Sequoia-*567*
Beattie, Clay Hathaway	Covina	S.Engr. 164+21	Theta Xi
Beatty, Mary Lois A.B., Pomona, 1929	Claremont	Educ. gr.	184 Roble-*2522*
[4]Beaver, Mildred A.B., Stanford, 1918	Palo Alto	Span. gr.	915 Waverley, P-p
Becker, Walter Nicholas A.B., Stanford, 1928	Sacramento	Med. gr.	2207 Clay, SF-sf
Beckett, Richard Collier	Palo Alto	LD 45+70	1029 Ramona, P-p
Bedford, Daniel Vale	Santa Monica	LD 89+131	Sigma Chi-*628*
Bedford, Thomas Archibald	Berkeley	S.Engr. 137+107	249Branner-*2665*
Bednar, James Edmund	Omaha, Neb.	LD 93+152	PhiGammaDelta-*2561*
[1]Bedwell, Loring Eugene	Portland, Ore.	LD 59–2	Sigma Alpha Epsilon
[22]Beede, Ruth May	Antioch	Soc.S. 110·41+43	212 Roble-*2186*
Beeman, Howard Dean	Woodland	S.Engr. 166+244	249 Branner-*2665*
Beene, Adron A. A.B., Baylor, 1929	Las Cruces, N.M.	Law gr.	Kappa Sigma-*2782*
Beenfeldt, Norman	San Francisco	LD 46+35	111 Encina
Begien, John Thayer	Richmond, Va.	Chem. 102·38–11	562 Encina-*1501*
*[23]Behner, Alice Maud	Glasgow, Montana	Soc.S. 121+202	382 Roble-*2157*
Behnke, Herbert Adolf A.B., Stanford, 1928	Rivera	Law gr.	323 Union
[23]Beinhorn, Charles Oliver	Exeter	Econ. 127·35+13	543 Forest, P-p
[1]Belding, Clifford William	Los Angeles	LD 34–12	Sigma Chi-*628*
[23]Bell, Fred Charles	Eureka	LD 86+65	247 Branner-*2414*
Bell, James Forbes	Pocatello, Idaho	LD 54+48	336 Encina-*554*
Bell, Ralph Marion	Paso Robles	Chem. 90·41+4	445 Hmltn, P-*2194*
[1]Bell, Reginald A.B., Oberlin, 1916; A.M., Stanford, 1928	Palo Alto	Educ. gr.	Ravenswood, P-*2013*
Bell, Robert Henry A.B., Stanford, 1930	Pecos, Texas	Econ. 180+57	201 Toyon-*2668*
Bendetson, Karl R. A.B., Stanford, 1929	Aberdeen, Wash.	Law gr.	228 Fulton, P-*2209*
Benedict, Gertrude E. A.B., Smith, 1926; A.M., Stanford, 1928, M.B.A., 1930	Stanford Univ.	S.Bus. gr.	450 El Escarpado
Bennett, Dudley Gates	San Francisco	LD 100+28	103 Branner-*1120*
Bennett, Jackson Kirby	Santa Clara	LD 49+38	Santa Clara-*879*

[5]Bennett, Lauren K. The Dalles, Ore. Chem. gr. 409 Encina-*1703*
A.B., Willamette, 1928
Benninger, Edgar Robley San Francisco S.Engr. 162+79 DltaTauDlta-*1363*
[4]Benson, Albert Niles San Leandro Educ. gr. 996 Dutton, SL-sl
A.B., Stanford, 1927
Benson, Lyman Kelseyville S.Biol. 20·163+229 532 Encina-*31*
A.B., Stanford, 1930
[14]Benson, Richard San Mateo Educ. gr. 221 Grand, SM-sm
B.S., Oregon Agricultural, 1925; A.M., Washington, 1925
Bentel, Dwight Essler San Francisco LD 45·34+0 250 Encina-*1571*
[4]Benton, Jess Earl El Paso, Texas LD 137 Toyon-*1207*
[1]Bentzien, Forrest L. Santa Clara Pol.S. 36·145+34 1651Lxgtn,SC-sc
A.B., Stanford, 1930
Berg, Harry Clinton Stockton Pol.S. 180+121 114 Encina-*B*
A.B., Stanford, 1930
Bergstrom, George Edwin Beverly Hills LD 94+87 616 Forest, P-*1577*
[4]Bering, Barry F. San Jose Math. gr. 251 Toyon
A.B., Stanford, 1926, A.M., 1929
Bering, Keith Everton San Francisco S.Engr. 5·133+25 251 Toyon-*2383*
Bernhard, Lazare F. Los Angeles Law gr. 534 Guinda, P-p
A.B., Stanford, 1929
Bernhauer, Arthur Claude Fresno LD 90+58 234 Branner-*2617*
Bernthal, Herbert George San Francisco LD 41+1 332 Encina-*2302*
Berry, John Wesley Oakdale Chem. 90·89+47 417 Encina-*2668*
Berryman, Waldo Boyd Palo Alto S.Engr. 128+114 558 Lincoln, P-p
Best, William Franklin S. Pasadena LD 42+2 210 Encina-*1713*
[5]Best, William S. Altadena Econ. 136+169 Phi Delta Theta
[5]Betteley, Alfred B. Valparaiso, Chile Econ. 87+40 138 Toyon-*1259*
Bettman, Gerald L. San Francisco S.Engr. 5·140+8 212 Toyon-*2811*
Betts, Gilbert Lee Miami, Ariz. Educ. gr. 661 Gilman, P-p
B.S., McPherson, 1921; A.M., Stanford, 1927
[23]Beverstock, Roswell C. Los Angeles Econ. 127+82 132 Toyon-*1255*
[12]Bianchi, Fred August Ventura Zoöl. 181+133 Swanton-*935*
Bibee, James De Von Southgate Econ. 90·91+15 329Hawthorne,P-p
A.B., Stanford, 1930
[23]Biggs, Warren Los Angeles LD 78+70 Phi Kappa Psi
Bigler, Alexander Bowman Santa Maria Med. gr. 2180 Washington, SF-sf
A.B., Stanford, 1926
[4]Bigler, Anna Loretta Palo Alto Educ. gr. 534 Channing, P-p
A.B., Minnesota, 1904
[23]Bigotti, Richard Thomas San Jose Phyl. 95·67+9 305 Lytton, P-*1907*
Billig, H. Ellsworth San Francisco Med. gr. *2207* Clay, SF-sf
A.B., Stanford, 1928
[13]Bing. Dana Gerald Bakersfield LD 143+141 Phi Sigma Kappa-*538*
[1]Binkley, Charles H. Cobb Chem. gr. 406 Sequoia-*2396*
A.B., Stanford, 1928
[2]Binkley, Francis A. Cobb LD 62–17 406 Sequoia-*2396*
Binkley, John B. Cobb S.Engr. 142+62 406 Sequoia-*2396*
[1]Bird, Kenneth L. Des Moines, Iowa Chem. gr. 656 Bryant, P-*707*
A.B., Drake, 1921; M.S., Iowa State, 1923
Birss, Spaulding Santa Barbara LD 44+23 130 Encina-*2634*
Bisbee, Orrin William Heppner, Ore. LD 92+167 228 Sequoia-*1129*
[12]Bisceglia, Gabriel Angelo San Jose Econ. 174+95 238 Branner
Bishop, Beatrice Isabella Sunnyvale LD 78+100 Bay View,S-Box 587. s
Bishop, Eugene Carnes Tigard, Ore. Econ. 129+19 Sigma Nu-*1385*
[5]Bishop, Frank Edward Menlo Park Educ. gr. 933 Florence, MP-*847*
A.B., Nebraska Wesleyan, 1916; A.M., Stanford, 1930

[4]Bishop, Henry Francis A.B., Fresno State College, 1928	Fresno	Educ. gr.	Fresno-f
Bishop, Jerome Holland, Jr. A.B., Stanford, 1930	Pasadena	Econ. 184+87	717 Bryant, P-p
[234]Blacet, Francis Edward A.B., Pomona, 1922, A.M., 1925	S. Pasadena	Chem gr.	1670 College, M-m
[12]Black, Alexander	Palo Alto	LD 55–20	2315 Cwpr, P-Box105,p
[31]Black, Arthur Whitwell	Denver, Colo.	LD 83+30	219 Ramona, P-p
Black, B. Marden	Piedmont	Pre-Med. 137+163	Theta Xi
Black, Raymond Kenneth	Sacramento	LD 45+32	309 Encina-*2153*
Black, William Carter A.B., Stanford, 1929	Hollywood	Med. gr.	2321 Sacramento, SF-sf
Blackford, James McNeal A.B., Stanford, 1927, J.D., 1930	Libby, Mont.	Law gr.	302 Union-*1288*
Blackman, Chester Wiggin A.B., Stanford, 1930	Alhambra	Engl. 4·176+192	308 Branner-*1564*
Blackman, Donald Moody	Stanford Univ.	LD 45+14	233 Encina-*1802*
[4]Blackman, John Everest	Stanford Univ.	Hist. ‡	548 Gerona
[134]Blackwelder, Gertrude	Stanford Univ.	LD 41+35	Escondite Cottage-*N*
[13]Blackwelder, Richard Eliot	Stanford Univ	Zoöl.125+72	Escondite Cottage-*N*
Blade, Ellis Hardin	Belvedere	LD 46·56+68	350 Encina-*564*
[1]Blair, Vivian Losse A.B., Stanford, 1902	San Jose	Engl. gr.	1145 Martin, SJ-sj
[5]Blair, Waddington A.B., Stanford, 1930	San Francisco	Educ. gr.	203 Union-*815*
[2]Blakey, Carlota	Palo Alto	LD 12+8	610 Coleridge, P-p
Blanchard, Leland Bowman	Petaluma	LD 45+34	304 Encina-*1786*
[5]Blanchard, Wilmer Purvine	Petaluma	Econ. 90·45+6	503 Encina-*1786*
Blanshan, Otis Earl A.B., Simpson, 1926	Grand Junction, Ia.	S.Bus. gr.	353 Lytton, P-p
[4]Blasingame, Marguerite L. A.B., Hawaii, 1928	Honolulu, T.H.	Ed.-G.A. gr.	248 Roble
Blaye, Raphael Sylvester	Porterville	LD 47+1	208 Encina-*1941*
Blethen, Howard Taylor, Jr.	Los Gatos	Econ. 46·49–4	40 Encina-*2726*
Blethen, Janet Crowley A.B., Stanford, 1930	Los Gatos	Cl. Lit. gr.	Alpha Phi
[4]Blevins, Emery M. A.B., State College of Washington, 1928	North Bend, Wash.	Educ. gr.	256 Kellogg, P-p
[4]Blevins, William Joseph, Jr.	Woodland	Pre-Med. ‡	201 Toyon
[3]Blichfeldt, Nora Anna	Oakland	Pol.S. 135·15+16	334 Roble
*Blinn, Robert Kuhls A.B., Stanford, 1930	Alameda	Pol.S. 187+258	232 Branner-*2257*
Bloom, Leonard James	San Francisco	LD 48+91	344 Encina-*1683*
Blue, Dugald Leslie	Glendale	LD 69+9	Kappa Sigma-*1326*
Blum, Jean Myron	Los Angeles	Econ. 135+5	131 Toyon-*1995*
Blume, John August	San Francisco	LD 75+80	173 Lytton, P-p
Blumenthal, Emil L. A.B., Stanford, 1927	Philipsburg, Mont.	Med. gr.	2667 Derby, Berkeley-b
Blumlein, Joseph	San Francisco	LD 49+86	358 Encina-*981*
Boden, William Estey A.B., Stanford, 1928, Engineer, 1930	Sacramento	C.E. gr.	313 Sequoia-*2038*
Bodle, George Emery A.B., Stanford, 1930	Boise, Idaho	Hist. 182+76	Phi Gamma Delta
Boeger, August George, Jr.	San Jose	Econ. 88·44+12	Sigma Chi-*628*
Boese, Walter Frederic	San Francisco	LD 42+14	332 Encina-*2362*
Boeseke, Bertram Cedric A.B., Stanford, 1930	Santa Barbara	Econ. 120·60+14	Phi Delta Theta

Bogen, Dorothy — Carmel — Soc.S.180+185 AlphaOmic.Pi-*1367*
A.B., Stanford, 1930
Bogert, Reid — Palo Alto — S.Engr.45-60+39 1820Cwpr,P-*1123*
Boggs, Barbara Lee — Kelseyville — LD 92+80 — 310 Roble-*2743*
[4]Boggs, Oliver Carter, Jr. — Medford, Ore. — LD ‡ — *226* Toyon-*1291*
[23]Boggs, Robert William — Napa — LD 30+16 — 430 Encina
[4]Bogie, Donald Leeman — Redwood City — Educ. gr. — 24 Fulton, RC-rc
B.S., Oregon Agricultural, 1923
[5]Bogue, Harris Dixon — Burlingame — Hist. 126+64 — 140 Toyon-*2668*
[4]Bohle, James Henry — Raymond, Wash. — Educ. gr. — 700 Amherst, M
A.B., Willamette, 1922
[34]Bohn, John A. — Oakland — Pol.S. 111-18+16 Alpha Sigma Phi
Bolin, Rolf Ling — Pacific Grove — Zoöl. gr. — Pacific Grove-pg
A.B., Utah, 1925; A.M., Stanford, 1929
[4]Bollinger, Fred Maurice — Phoenix, Ariz. — Hist. gr. — 557 Lasuen-*1335*
A.B., Southeast Missouri State Teachers College, 1927
[4]Bolton, Lucille Marie — Fresno — Educ. gr. — Roble
A.B., Fresno State Teachers College, 1925
[12]Bolton, Robert Elmer — Los Angeles — Chem. gr. — 523 Encina-*2473*
A.B., Stanford, 1927, Engineer, 1930
Bonebrake, Roy Conrad — Waynesboro, Pa. — Law gr. — 800 Cowper, P-p
A.B., Gettysburg, 1928
[23]Bonn. Alice B. — San Jose — Educ. 90-90+161 — 166 Roble-*2252*
A.B., Stanford, 1930
Bonn, Elizabeth Hayes — Palo Alto — Hist. 180+113 — Alpha Phi-*1387*
A.B., Stanford, 1930
Bonner, Charles Wolters — Fresno — Econ. 126+88 — Zeta Psi-*B*
[4]Bonner, Linda O. — Rusk, Texas — Educ. gr. — Roble
A.B., Baylor, 1928
[234]Bonney, Holbrook — Menlo Park — Fr. gr. — Menlo Jr. Coll., MP-mp
A.B., Amherst, 1908
Bonte, John Storer — San Francisco — LD 46+27 — 404 Encina-*1881*
[5]Boogaert, Johan Cornelius — San Jose — Chem. gr. — SJ-Rt. 3, Box 651, sj
A.B., San Jose State Teachers College, 1929
[24]Boone, Eleanor Sims — Hayward — Zoöl. gr. — MillsCollege-Box351,mc
A.B., Mills, 1926; A.M., Stanford, 1927
[23]Boone, Thomas Harold — Palo Alto — Med. gr. — 2202 California, SF-sf
A.B., Stanford, 1927
[3]Boord, Harry Owen — Oakland — Econ. gr. — 1056 Hopkins, O-o
B.S., Pittsburgh, 1924; M.S., Washington and Jefferson, 1927
Booth, Frank Ewen — El Segundo — LD 92+63 — Phi Delta Theta
[12]Booth, Walter Bates — Hollywood — Law gr. — Sigma Nu-*821*
A.B., Stanford, 1923, J.D., 1930
Boothe, Dyas Power, Jr. — Ceres — Econ. 135+66 DeltaTauDelta-*1363*
Borden, Joseph Clarence — Palo Alto — Econ. 180+62 — 730 Bryant, P-p
A.B., Stanford, 1930
[4]Boree, Ramona Agnes — Hayward — LD ‡ — 168 Roble
[4]Boren, Inez M. — Burlingame — Educ. ‡ — 624 Lasuen
Borley, William Edgar — Redwood City — Med. gr. — 2480 Washington, SF-sf
A.B., Stanford, 1927
[4]Born, Helen Louise — Burlingame — LD — 916 El Camino Real, B-b
[12]Born, Maynard Robert — Burlingame — E.E. gr. — 314 Union-*2046*
A.B., Stanford, 1929, Engineer, 1930
Born, Ronald Henry — Burlingame — LD 96+30 — 228 Sequoia-*2046*
[3]Borthwick, Harry Alfred — Davis — Bot. gr. — Univ. Farm, Davis-d
A.B., Stanford, 1921, A.M., 1924, Ph.D., 1930
[5]Bosche, John Henry — Piedmont — LD 88-2 — Theta Chi-*1383*
Boscoe, Anthony Ralph — Stockton — Med. gr. — 2300 Webster, SF-sf
A.B., Stanford, 1929

Botasof, Isador Wolf	San Francisco	LD 97+126	103 Sequoia-*528*
[12]Bothwell, James Latimer	Twin Falls,Ida.	LD 56+50	104 Branner-*1083*
Bouelle, Mary Louise	Los Angeles	LD 44–10	*327* Roble-*62*
Boushey, Homer Astley, Jr.	Hollywood	LD 44+42	328 Encina-*2571*
Bovard, Richard Husketh	Berkeley	Econ. 120–3	Kingscote
Bowen, Kenneth Leroy	Palo Alto	Soc.S.-Jn. 39·96+86	616Forest,P-p
Bower, Robert Sharon A.B., Stanford, 1929	Palo Alto	Law gr.	1017 Guinda, P-p
[12]Bowers,FrederickAlexander	TempleCity	C.E. 145–2	Sigma Chi-*628*
Bowles, Vernon Orrin	San Mateo	Chem. 5·139+100	PhiSig.Kap.-*538*
[4]Bowman, Carl Andrew B.S., Kansas State Teachers College, 1921;	Arcata	Educ. gr.	Centerville-Box 137,c A.M., Northwestern, 1925
[4]Bowman, Elton	San Jose	Educ. gr.	87 Glen Eyrie, SJ-sj
[1]Boyce, Lillian Elizabeth	Beverly Hills	LD 95+26	Chi Omega
[4]Boyce, Marjorie Gray A.B., California, 1921, A.M., 1924	Mt. Hermon	Educ. gr.	2309ElCamino Real,P-p
Boyd, Eleanor Sprott	San Mateo	LD 47+90	108 Roble-*2324*
Boyd, Paul O'Sheehan A.B., Idaho, 1929	Sturgis, Ky.	Law gr.	1127 High, P-*718*
[23]Boyers, L. Morgan	Berkeley	LD 30+21	307 Encina-*653*
Boyes, Hugh Herbert	San Jose	Pre-Med.90·45+37	1196Sglty,SJ-sj
Boyles, Edgar Amos	Sacramento	Econ. 113+88	225 Toyon-*1012*
[23]Boynton, Elizabeth Ives A.B., Stanford, 1930	Santa Monica	Phil. 135·46+40	173 Roble-*857*
Bradford, Francis Harrison	Arbuckle	S.Engr. 134+2	242 Branner-*2497*
[4]Bradford, Lilah C. A.B., Oregon, 1911	Portland, Ore.	Educ. gr.	339 Roble
[1]Bradshaw, Elizabeth Louise	Piedmont	LD 122+39	Alpha Phi-*1387*
Bradshaw, Samuel L.	San Francisco	LD 40+72	207 Encina-*1644*
[1]Brailsford, Frederick M.	Twin Falls, Ida.	LD 74–7	308 Branner-*594*
Brainerd, James Lamb	Atherton	Econ. 138+31	Alpha Sig. Phi-*1357*
Bramel, Hadley R. A.B., Stanford, 1930	Salt Lake City, Utah.	S.Engr. 41·152+42	Theta Xi
Bramkamp, Robert Greenleaf A.B., Stanford, 1926	Banning	Med. gr.	2180 Washington, SF-sf
[4]Brandt, John H. A.B., College of Idaho, 1926	Nampa, Idaho	Educ. gr.	543 Byron, P-*2767*
[4]Branigan, John B.S., Nebraska, 1915; A.M., Stanford, 1926	Needles	Educ. gr.	332 Forest, P-p
[4]Branstator, Hilda Goerig B.S., Oregon, 1928	Astoria, Ore.	Educ. gr.	336 Roble
Brash, Sidney Herbert	San Francisco	LD 79+46	628 Gilman, P-p
[4]Brassett, Arnold H.	Kalispell, Mont.	LD	318 Union-*1295*
[4]Bravinder, Kenneth Mason A.B., Southern California, 1930	Long Beach	Geol. gr.	557 Lasuen-*1335*
[4]Brecher, C. Rose A.B., Stanford, 1928	San Jose	Engl. gr.	177 Roble
Breid, Elizabeth Wolz A.B., Grinnell, 1929	Toledo, Iowa	S.Bus. gr.	565 Salvatierra-*1672*
Brekelbaum, Erwin Carl	San Jose	LD 45+65	205 S. 9th, SJ-sj
Brenan, Henton Sawyer	Redlands	LD 88+19	307 Sequoia-*1215*
[1]Brenner, Ralph Judson A.B., Stanford, 1930	Palo Alto	Ec.-Ac. 39·141+70	1044Hmltn,P-p
Brett, Alice	Palo Alto	LD 20·73+99	Delta Gamma-*1366*
[5]deBretteville,Alexander,Jr.	SanFrancisco	LD 4·80+34	16 Perry, MP
Breuer, Albert William A.B., Stanford, 1930	Burlingame	Hist. 182+101	1533 Ralston, B-b

Breuer, Edward Otto — Burlingame — Econ. 148+99 — 1533 Ralston, B-b
Brewster, Hughes — Dixon, Ill. — Law gr. — 420 Encina-*1468*
A.B., Stanford, 1928
Breyer, Irving Gerald — San Francisco — Law gr. — Stanford Univ.
A.B., Stanford, 1929
Brian, Lawrence G. — Poughkeepsie, N.Y. — C.E. gr. — 1001 Ramona, P-*637*
B.S., Ohio Northern, 1928
Brickey, Raymond — Palo Alto — LD 86+82 — 124 Dana, P-p
[4]Brickley, Joseph Terrence — San Mateo — LD — 54 N. Ellsworth, SM-sm
Briggs, Janet Zaph — Santa Ana — S.Engr. 151+171 — 309 Roble-*870*
[5]Briggs, Mildred Pearl — San Jose — LD 42+6 — 158 Roble-*1825*
Briggs, Mitchell Pirie — Palo Alto — Hist. gr. — 555 Harvard, M-*2697*
A.M., Wisconsin, 1917; Ph.D., Stanford, 1930
Briggs, Reid Richmond — Los Angeles — LD 91+111 — Sigma Alpha Epsilon
[23]Brilliant, Henry Byron — San Francisco — Econ. 97-30–2 — 213 Sequoia-*865*
Brink, Charles M. — Palo Alto — Pre-Med. 144+80 — Chi Psi-*1648*
Brink, Holden Edmund — Palo Alto — Med. gr. — 2317 Sacramento, SF-sf
A.B., Stanford, 1929
[4]Brintle, Shirley Lanny — Long Beach — Educ. gr. — 530 Webster, P-p
B.S., Oklahoma State Teachers College, 1922; A.M., Stanford, 1929
[23]Brinton, Robert L. — Mt. View — S.Engr.90-31+5 — 1645Villa,MV-mv
[4]Briscoe, Mabel — Sacramento — Span. gr. — 460 Channing, P-p
A.B., Queens University, 1922
Bristow, John Robert — Palo Alto — Econ. 185+21 — 558 Lincoln, P-p
A.B., Stanford, 1930
[4]Brittell, Clarence A. — Hollister — Educ. gr. — 240 S. 12th, SJ-sj
A.B., San Jose State Teachers College, 1929
[4]Britton, Lewis Henry — Morgan Hill — Educ. gr. — Sunnyvale-s
A.B., Stanford, 1905
Brobeck, William Morrison — Piedmont — S.Engr. 183+218 — 240 Toyon
A.B., Stanford, 1930
Brock, Alden Lorin — Long Beach — Soc.S.:Sc.92-88+103 — 44En.Av,P-p
A.B., Stanford, 1930
[5]Brock, Glenn Clark — Abilene, Texas — Chem. gr. — 1033 Guinda, P-p
A.B., Simmons University, 1929
[5]Brock, Joseph S. — Sheldon, Iowa — Law gr. — 320 Union-*1174*
A.B., College of St. Thomas, 1926
[4]Brodie, Rose — San Diego — Span. gr. — 1121 Bryant, P-p
A.B., Arizona, 1925
Brodrick, Richard Boyd — Piedmont — LD 50+12 — Phi Delta Theta
Brokenshire, John Roberts — San Jose — Soc.S.-Jn. 91-32+46 — 102S23d,SJ-sj
Bronson, Frank Stanislau — Beverly Hills — LD 54–3 — 653 Cabrillo-*32*
Brooks, Baylor — Los Angeles — Geol. gr. — 427 Webster, P-p
A.B., Stanford, 1928
[4]Brooks, Eva — Pasadena — Zoöl. gr. — Pacific Grove-pg
A.B., Colorado, 1915
[34]Brooks, James — Los Angeles — LD 34–17 — 616 Forest, P-p
[4]Brooks, Lloyd Lincoln — Stockton — Educ. gr. — 151 Cowper, P-p
A.B., Chico State College, 1930
Brooks, Phillips Gardner — Honolulu, T.H. — S.Bus. gr. — 1270 College, M-m
A.B., Stanford, 1927, M.B.A., 1930
Brophy, William M. — Menlo Park — Econ. 90-46+9 — MP-Box 654, mp
[5]Brotherton, Phillip Agnew — Santa Barbara — Educ. gr. — 921 Scott, P-*1413*
A.B., Santa Barbara State Teachers College, 1927
[13]Brouse, Weldon Shields — Monrovia — Econ. 90-52–7 — Phi Delta Theta
Brown, Arthur Francis — San Francisco — Econ. 90-44–7 — 205 Sequoia-*1092*
Brown, Carl Grover, Jr. — San Francisco — LD 93+34 — Phi Kappa Psi

[4]Brown, Crawford Allen Superior, Ariz. Chem. gr. 627 Homer, P-p
A.B., Lincoln Memorial, 1925
[4]Brown, Charles Francis Piedmont LD 238 Toyon
[12]Brown, C. Howell Santa Rosa Chem. 90-29+7 216 Sequoia-*1544*
Brown, David Edward Indianapolis, Ind. LD 91+49 114 Toyon-*2411*
Brown, Donald MacKenzie Laguna Beach Pol.S. gr. Los Altos-*1633*
A.B., Pomona, 1929
Brown, Donald Merritt Taft S.Engr. 182+41 202 Toyon-*618*
A.B., Stanford, 1930
Brown, Dorothy Margaret Palo Alto Chem. gr. U.S. Vet. Hosp., P-p
A.B., Stanford, 1930
[4]Brown, Esther Eggers Riverside Engl. gr. 344 Roble
A.B., Stanford, 1924
Brown, Eugene Palo Alto Educ. gr. 255 Homer, P-p
B.S., San Jose State Teachers College, 1928
[23]Brown, Gary Talleur Oakland LD 29–6 403 Encina-*2204*
Brown, H. Barclay Los Angeles LD 38+16 205 Encina-*2041*
Brown, Jack Douglas Piedmont LD 43–8 126 Encina
[234]Brown, J. Prentiss Palo Alto Educ. gr. 1740 Middlefield, P-*1763*
A.B., Oregon, 1916
Brown, Kenneth Morrison Santa Clara S.Engr.90-93+155 811Mnroe,SC-sc
A.B., Stanford, 1930
Brown, Lee Gorin Sacramento Pol.S. 90-92+90 Phi Gamma Delta
A.B., Stanford, 1930
Brown, Leland Hermon Palo Alto E.E. gr. 525 Guinda, P-p
A.B., Stanford, 1922, Engineer, 1924, Ph.D., 1930
[4]Brown, Leola Ethelyn Palo Alto Ed.-G.A. ‡ 164 Waverley, P-p
Brown, Louis Daniel San Francisco Phyl. 99-41+9 420 Ramona, P-p
Brown, Lucy Palo Alto LD 94–7 444 Tennyson, P-p
[5]Brown, Marcella Margaret Gilroy S.Biol. 139+72 302 Roble-*1666*
[5]Brown, Marshall Roberts Palo Alto Soc.S. 155+8 DeltaTauDelta-*1363*
Brown, Meribel Lillian Gilroy LD 46+31 312 Roble-*1666*
Brown, Merrill Williams Providence, R.I. Zoöl. gr. Menlo Park-*956*
A.B., Redlands, 1927; A.M., Stanford, 1929
Brown, Morden Grant Palo Alto Phys. gr. 1013 Ramona, P-*658*
A.B., Stanford, 1929
[4]Brown, Oliver Ellis Newman Educ. gr. 335 Kipling, P-p
B.S., Oregon Agricultural, 1922
Brown, Paisley Phoenix, Ariz. LD 42+34 348 Roble-*547*
[4]Brown, Ralph Milton Modesto Law gr. 140 Toyon-*987*
A.B., California, 1930
[4]Brown, Robert Dixon Troy, Ala. Chem. gr. *224* Everett, P-p
B.S., Alabama, 1926, M.S., 1928
Brown, Robert Minge San Francisco Hist. 147+257 216 Encina-*2668*
Brown, Russell Richard Montrose, Colo. Educ.gr. 1445Cmbdge,P-Box382,p
A.B., Western State, 1922; A.M., Stanford, 1926
Brown, Sarah Helen San Bernardino Psych. gr. 377 Roble-*2*
A.B., California, 1924; A.M., Columbia, 1926
Brown, Verne Wilton Livermore LD 84+46 201 Branner-*2665*
Brown, W. Barret Los Angeles Econ. 128+11 250 Branner-*2668*
*Brown, Walston Shepard Coronado Pol.S. 184+225 256 Toyon-*969*
A.B., Stanford, 1930
Brown, Walter Roy Palo Alto M.E. gr. 134 Wilson, P-p
A.B., Stanford, 1923
[5]Brown, William Hopkins San Francisco LD 46+20 *327* Encina
[13]Brown, Worth Alonzo Capitola Econ. 124+31 Theta Xi
[5]Brownell, Robert Coffin Los Angeles Econ. 141+47 Chi Psi-*1648*
*[5]Browning, George Lewis Florin S.Biol. 90-20+30 Pacific Grove-pg

Brownridge, William T. Los Angeles Econ.5·106+4 ThetaDeltaChi-*1828*
Brugman, John William Hinsdale, Ill. LD 43·42–5 136 Encina-*2111*
Brumbaugh, Donald Harmon Redlands Med. gr. 2321 Sacramento, SF-sf
A.B., Redlands, 1926
[12]Brundage, John Crouch San Jose Econ. 90·71–9 329 Union-*947*
Brunson, Glenford Woodland S.Engr. 90·50+22 218Sequoia-*1946*
Bryan, Cecil E., Jr. Pasadena LD 51+16 251 Encina-*1462*
[12]Bryan, Edwin H., Jr. Honolulu, T.H. S.Biol. gr. 762 Dolores
B.S., Hawaii, 1920, M.S., 1924; Ph.B., Yale, 1921
[4]Bryan, Paul Charles Tomales Educ. gr. Menlo Heights
A.B., Stanford, 1924, A.M., 1926
Bryan, Roger Bates Seay San Diego S.Bus. gr. 327 Emerson, P-*1041*
B.S., California Institute of Technology, 1926; M.B.A., Stanford, 1930
Bryant, Daniel Pennington Eagle Rock Engl.-P.Sp.121·46+20 543En,-*1855*
Bryant, Stewart Frederick Stanford Univ. Pol.S. gr. 755 Santa Ynez
Graduate, U.S. Naval Academy, 1913
Bryant, William Bruce Monrovia LD 43+65 307 Encina-*2166*
Bryner, Cyril Menlo Park Slav. 92·48+53 MP-Box 507, mp
[4]Bubb, Charles R., Jr. Mountain View LD MV-Box 215, mv
Buchanan, A. Russell Palo Alto Hist. gr. East Palo Alto-Bx 431, p
A.B., Stanford, 1927, A.M., 1928
[4]Buchanan, George Stevenson Palo Alto Econ. 90· 1727 Waverley, P-p
[4]Buchser, Herman R. San Jose Educ. gr. Pacific Grove-pg
A.B., San Jose State Teachers College, 1928
Buckingham, Freda Marian Pasadena S.Biol.90·91+91 Del.Del.Del.-*1325*
A.B., Stanford, 1930
[23]Buckwalter, William Wright Palo Alto Econ. 186+105 79 Crescent, P-p
A.B., Stanford, 1930
Budd, Paul Lincoln Honolulu, T.H. LD 91+35 Phi Sigma Kappa-*538*
[1]Bugg, Herman LeRoy Lemoore LD 47·30–31 AlphaKap.Lam.-*658*
[24]Bugge, Elwyn B. Palo Alto Educ. gr. 610 University, P-p
A.B., Stanford, 1926
Bugge, Jacqueline Menlo Park LD 90+67 MenloPark-Bx 188, mp
[12]Bullard, Helen Rose Sacramento Educ. gr. Gamma Phi Beta-*1337*
A.B., Stanford, 1929
[1]Bullard, Margaret M. King City Zoöl. 103+30 349 Roble-*704*
Bullen, Reed Logan, Utah Law gr. 758 Waverley, P-p
B.S., Utah Agricultural, 1929
Bullis, John Albert Los Angeles Med. gr. 2480 Washington, SF-sf
A.B., Stanford, 1928
[1]Bullis, William Adlai Los Angeles Law gr. Beta Theta Pi-*1335*
A.B., Stanford, 1925, J.D., 1930
Bunnell, Jean College, Alaska Fr. 93·46+24 237 Roble-*674*
Bunnell, Virginia Los Angeles Span. gr. Gamma Phi Beta-*1337*
A.B., Stanford, 1928, A.M., 1930
Bunting, Edward Ramsey Piedmont LD 44+65 226 Encina
Bunting, John A., Jr. San Jose LD 41·66+52 DeltaTauDelta-*1363*
Burbank, William Winston Long Beach Med. gr. 2351 Washington, SF-sf
A.B., Stanford, 1927
Burgess, John Rockett Palo Alto Econ.-Acct. 138+131 525Univ.,P-p
[1]Burk, Georgina Meyer Stanford Univ. Pol.S. gr. 736 Coronado-*825*
A.B., Stanford, 1929
Burke, Marion Rebecca Palo Alto Soc.S.-Jn. 180+86 1551Emrsn,P-p
A.B., Stanford, 1930
Burke, Thomas Carrick, Jr. Portland, Ore. Engl. 91·35–5 500 Encina
Burke, William H. Los Angeles S.Engr. 146–5 Phi Kappa Sigma
[4]Burkhart, Oscar Edwin Hesperus, Colo. Chem. gr. 659 Salvatierra
A.B., Illinois, 1922; A.M., Colorado State Teachers College, 1928

Burks, Paul	Los Angeles	LD 89+43	Delta Upsilon
Burlew, Fred Northrop	Santa Ana	S.Engr. 6·150+87	Al.Sig.Phi-*1357*
Burnett,Andrew Hammond	SanFrancisco	LD 30·51+78	125 Encina-*1592*
Burnett, Anne	San Mateo	LD 90+53	240 Roble-*2484*
[12]Burnett, Arthur Dana	Maplewood, N.J.	LD 74+22	1256 College, M-*2501*
[4]Burnett, Bud Joseph	Seattle, Wash.	LD	326 Union-*738*
[5]Burnhill, Henry Clifford A.B., Stanford, 1929	Long Beach	Law gr.	450 El Escarpado-*1487*
[4]Burns, Edward Allen	Phoenix, Ariz.	Pol.S. 13+5	142 Toyon-*1437*
[4]Burns, Jack LeRoy A.B., San Jose State Teachers College, 1928	Roseville	Educ. gr.	1033 Guinda, P-p
[4]Burns, Lillian B.S., Oregon Agricultural, 1915	Pullman, Wash.	Educ. gr.	Roble
Burns, Milton Dearlove	Santa Cruz	Pol.S. 126+10	Phi Delta Theta
[1]Burns, Robert Benton	Hollywood	Econ. 107+91	Beta Theta Pi-*1335*
[4]Burns, Robert Edward A.B., Stanford, 1929	San Francisco	Law gr.	439 Hamilton, P-p
Burroughs, Harriet Prescott	Healdsburg	Soc.S. 136+166	226 Roble-*1249*
Burt, William Sylvester A.B., Stanford, 1930	Palo Alto	S.Biol. 87·94+25	1319 Bryant, P-p
[4]Burton, George Harold A.B., Wyoming, 1928	Superior, Wyo.	Educ.gr. 1133Newhall,SJ-Bx147,p	
Busch, James Elmer A.B., Stanford, 1928; J.D., 1930	Ukiah	Law gr.	216 Encina-*534*
Busey, Douglas Alan A.B., Nevada, 1929	Reno, Nev.	Law gr.	593 Salvatierra
[4]Bush, Claire Elizabeth	San Francisco	LD ‡	2061 Broadway, SF-*2816*
Bush, Clarence Edward	San Jose	Econ. 133+5	Phi Delta Theta
[5]Bush, John Burchard	San Francisco	Geol. 118·49–1	332 Forest, P-p
Bush, William Edwin	Woodland	Pol.S. 90·44–22	KappaSigma-*1326*
[5]Busyn, Helen Frances A.B., Wisconsin, 1926	Duluth, Minn.	Hist. gr.	Madroño-*1892*
Butler, Albert B.S., Denver, 1929	Denver, Colo.	S.Bus. gr.	948 Ramona, P-p
Butler, Hubert Ormond, Jr.	Los Angeles	LD 45+40	220 Encina-*2705*
Butler, Ray Hatch B.S., Utah, 1923; M.B.A., Stanford, 1930	Payson, Utah	S.Bus. gr.	543 Forest, P-p
Butler, Wallace Pierce	Los Angeles	LD 92+79	Delta Upsilon
[4]Butte, Joseph Aloysius	San Francisco	LD	213 Union
Butter, Franklin Alfred, Jr. A.B., Stanford, 1930	San Jose	Math. gr.	175 W.San Carlos,SJ-sj
Button, Robert Hilliard	Los Angeles	Econ. 90·45–5	443 Kipling, P-*2049*
Butts, John Humphrey	Wichita, Kans.	Econ. 44·94+52	Delta Kappa Eps.
Byer, Glen Dale	Hamlin, Kans.	Educ. 90·49+29	947 Wvrly, P-*2109*
Byrd, Oliver Erasmus A.B., Stanford, 1929	San Antonio, Tex.	S.Bus. gr.	258 Toyon-*647*
[3]Caddel, Ernest Wiley, Jr.	Corcoran	LD 54–13	Kappa Sigma
Caddy, Frank E.	Midwest, Wyo.	Chem. 128–1	529 Addison, P-p
Caglieri, Guido George	San Francisco	Econ. 141+14	Phi Kappa Psi
[4]Cain, Leo Francis	Chico	Educ. ‡	135 Toyon
[4]Cakebread, Aarian Sydney A.B., San Jose State Teachers College, 1926	San Jose	Educ. gr.	610 S. 9th, SJ-sj
Calder, J. Hamilton B.S., Brigham Young, 1925; M.B.A., Stanford, 1930	Vernal, Utah	S.Bus. gr.	758 Waverley, P-p
Caldwell, Philip Graham A.B., Stanford, 1929	Piedmont	E.E. gr.	313 Union

[12]Calkins, Mary Gilmer — Palo Alto — Cl.Lit. gr. — Forest Apts., P-p
A.B., Washington, 1929
[1]Call, Harrison William — Eureka — Law gr. — 826 Homer, P-*81*
A.B., Stanford, 1928, J.D., 1930
[4]Callaghan, Cecily Mary — Menlo Park — Engl. gr. — Coll. Sac.Heart,MP-mp
Ph.B., Loyola, 1921, A.M., 1924
Callvert, Ronald S. — Portland, Ore. — LD 44+28 — 30 Encina-*2793*
[1]Cameron, Allan — Oakland — LD 52+1 — 365 Forest, P
[12]Cameron, Arthur Edward — Athens, Ohio — Law gr. — 544 Tennyson, P-*1084*
A.B., Ohio, 1926
Cameron, James Kenneth — Freewater, Ore. — Hist. gr. — 411 Lytton, P-*2058*
A.B., Pacific University, 1928
[1]Cameron, Thomas Shields — Columbus, Ohio — Chem. 94·44–28 — 408 Sequoia-*672*
Camp, George Lee — Palo Alto — Pol.S. gr. — 318 Hawthorne, P-p
A.B., Stanford, 1929
[4]Camp, H. Virginia — Mountain View — LD ‡ — Mt. View-mv
[4]Campbell, Cora — Springfield, Ill. — Educ. gr. — 429 Forest, P-p
A.B., James Millikin, 1921
[4]Campbell, Emma M. — Springfield, Ill. — Educ. gr. — 429 Forest, P-p
A.B., James Millikin, 1924
[23]Campbell, Gordon — Carmel — LD 61·30+22 — 402 Encina-*2824*
Campbell, Helen Louise — Denver, Colo. — Psych. gr. — 117 Roble-*2314*
A.B., Denver, 1928, A.M., 1929
[12]Campbell, Joseph C. — Long Beach — Econ. 108–17 — DeltaKappaEpsilon
Campbell, Melanie Wright — Porterville — LD 37–3 — 339 Roble-*1924*
[1]Campbell, Orvin W. — Lodi — Soc.S.-Jn. gr. — 117 Cowper, P-p
A.B., Stanford, 1929
Campbell, Thomas Miller — Portland, Ore. — LD 44–6 — 330 Encina-*1722*
Campbell, William Alden — Sacramento — LD 90+51 — Delta Tau Delta-*1363*
Campiglia, Ralph Jetter — San Francisco — Pol.S. 130+46 — Phi Kappa Psi
[12]Cannon, Douglas Vernon — Chicago, Ill. — LD 52+5 — 1256 College, M-*1581*
Canseco, Francisco Manuel — Laredo, Texas — Chem.-Med.135·49+38 — 449Ec.-*2137*
A.B., Stanford, 1930
[5]Cantin, A. MacKenzie — Mountain View — LD 91+20 — 324 Sequoia-*1601*
[4]Cappleman, John William — Fresno — Educ. gr. — 557 Hamilton, P-p
A.B., Fresno State Teachers College, 1926
Capwell, C. Wayland — Chula Vista — S.Engr. 90·96+17 — 211 Union-*511*
A.B., Stanford, 1930
Card, Ben Franklin — Santa Monica — Pol.S. 181+26 — Kappa Alpha
A.B., Stanford, 1930
Card, George Holt — Denver, Colo. — Min. gr. — Palo Alto-Box 981, p
A.B., Stanford, 1924
Card, John Stark — Santa Monica — LD 43+13 — 203 Encina
Cardiff, George Howard — Santa Cruz — S.Engr. 90·93+21 — 214 Union-*83*
A.B., Stanford, 1930
[3]Cardiff, Robert Lionel — Santa Cruz — S.Engr. 90·41–15 — 311 Sequoia-*83*
Cardozo, Manoel Soares — San Bernardino — Soc.S. 90·46+31 — 450 Encina-*1032*
Carley, Leon Alanson — Stanford Univ. — Law gr. — 231 Union-*2665*
A.B., Stanford, 1929
Carlsmith, Merrill Lawrence — Hilo, T.H. — Law gr. — 421 Encina-*607*
A.B., Stanford, 1928, J.D., 1930
Carlson, Donald Edward — Pearl Harbor T.H. — C.E. 112·118+14 — 544 Encina-*542*
A.B., Stanford, 1930
[4]Carlson, John L. — Orosi — Math. gr. 610 — Dorchester, SM-sm
B.S., Nevada, 1928
Carlson, Robert — Portland, Ore. — Educ. 12·139+13 — 418 Encina
[4]Carlton, Ainsley Maxwell — San Mateo — Germ. gr. 315 — Georgetown, SM-sm
A.B., California, 1930

Carmichael, Annie Lou Santa Rosa Psych. 90·91+109 210 Roble-*2564*
A.B., Stanford, 1930
[5]Caro, Maurice Phoenix, Ariz. Econ. 90·47+7 519 Ellis, SF-sf
Carpenter, Clarence Ray Cherryville, N.C. Psych. gr. Union-*1993*
A.B., Duke, 1928
[1]Carpenter, Harry Lee Richmond LD 4–13 249 Encina-*2483*
Carpenter, Helen Elizabeth Richmond S.Bus. gr. 365 Roble-*2384*
A.B., Stanford, 1928, M.B.A., 1930
Carpenter, Howard Luxmoore Santa Paula Med. gr. 1860 Turk, SF-sf
A.B., Stanford, 1928
[12]Carpenter, Powell W. Chicago, Ill. Pol.S. 183+1 Kingscote
A.B., Stanford, 1930
[12]Carr, Donald Brooks Stockton Pre-Med.21·132–22 ThetaChi-*1383*
Carr, Gilbert Lawrence Ocean Park Hist. 142+201 *237* Toyon-*2784*
[4]Carr, Harriette Palo Alto Hist. ‡ *2200* Waverley, P-p
Carr, William Herbert Palo Alto S.Bus. gr. 424 Seneca, P-*1981*
A.B., Stanford, 1928, M.B.A., 1930
[23]Carriel, Howard W. San Francisco LD 31+5 406 Encina
[12]Carrington, Jack Abeel Santa Rosa Econ. 90·91+101 *216* Sequoia-*2377*
A.B., Stanford, 1930
[5]Carroll, Frank Bernard San Jose Law gr. 539 Encina-*508*
A.B., Stanford, 1928
[5]Carroll, Frank Emmet, Jr. San Francisco Soc.S.40·101+88 367 16thAv, SF-sf
Carroll, Joe Shannon Palo Alto Soc.S.-Jn.180+167 330PloAto, P-p
A.B., Stanford, 1930
[1]Carson, Benjamin Ann Arbor, Mich. Law gr. 684 Mirada
A.B., Michigan, 1929
Carson, Jean Frances Berkeley LD 44+38 172 Roble-*1794*
Carter, Conwell Brooks Phoenix, Ariz. Bot. 45·84+15 210 Toyon-*1386*
[5]Carter, Frederick Butler Pasadena Econ. 119–4 Zeta Psi-*B*
Carter, Irval Wayne Porterville Math. 90·99+135 333 Union
A.B., Stanford, 1930
[4]Carter, Marshall Lloyd Los Angeles Pre-Med. 160+56 Alpha Delta Phi
[5]Carter, Nelson I. Los Angeles Soc.S.9·160+114 AlphaDeltaPhi-*J*
Carter, Oliver Jesse Redding LD 83–2 249 Toyon-*2485*
Cartlidge, Catherine Louise Redlands LD 99+26 337 Roble-*2542*
Cartwright, Theodore Carl, Jr. Pasadena LD 90+16 Sigma Alpha Eps.-*1305*
Cary, J. Alison San Francisco Med. gr. 440 Melville, P-*595*
A.B., Stanford, 1921
Cary, William Sayre San Francisco Med. gr. 2300 Webster, SF-sf
A.B., Stanford, 1922
Case, Donald Lathrop Los Gatos Econ.163+158 Sig.AlphaEps.-*1305*
Case, Paul H. Glendale, Ariz. Pre-Med.90·51–5 316Sequoia-*1684*
[4]Casey, John Carl Eaton, Colo. Educ. gr. 781 Addison, P-p
A.M., Denver, 1909
[12]Casey, John Harold Norman, Okla. Soc.S.-Jn.gr.Fac.Ex., Norman, Ok.
B.Jn., Missouri, 1920; A.M., Stanford, 1930
[4]Casiday, Harold Larue Pomona Educ. gr. *223* Toyon
A.B., Pomona, 1927
Cass, Alonzo Beecher Los Angeles Pre-Med.12·200+87 1001Rmna, P-p
[4]Cass, George Theodore San Jose Educ. gr. 977 S. 8th, SJ-sj
B.S., Kansas State Teachers College, 1918
Cassel, John David Mayfield Bot.90·98+119 654Dmth, M-B513, m
A.B., Stanford, 1930
[234]Casselberry, William Sturgeon MenloPrk Educ. gr. 699 Cedar, MP-*585*
A.B., California, 1916; A.M., Stanford, 1929
[4]Castberg, Harold T. San Francisco S.Engr. 79–7 Kappa Alpha

Castellanos, Joseph C. Los Angeles Econ. 194+122 248 Branner-*1612*
A.B., Stanford, 1930
Cathcart, Arthur J. Palo Alto Econ. 129–8 Theta Delta Chi-*1828*
Cathcart, Robert S. Palo Alto Soc.S. 180+138 1215Emerson,P-p
A.B., Stanford, 1930
Cathcart, Wallace Daniel Palo Alto Law gr. 1215 Emerson, P-p
A.B., Stanford, 1927, J.D., 1930
Catlin, Harry Stockwell Palo Alto LD 80+14 114 Rinconada, P-p
[1]Catton, Barbara Northfield, Minn. Hist. gr. 344 Serra-*67*
A.B., Carleton, 1929
[4]Caulkins, Alice Estelle Seattle, Wash. Soc.S. gr. Roble
A.B., Washington, 1925
[5]Cavalero, Philip Stockton Law gr. 525 Encina-*2027*
A.B., Stanford, 1928
Center, Hugh Stuart San Jose Law gr. 245 S. 13th, SJ-*1363*
A.B., Stanford, 1927, J.D., 1930
[1]Chadwick, George Charles Palo Alto LD 43–19 536 Lincoln, P-p
[34]Chai, Feng Yang China Pol.S.‡16+0 327 Cowper, P-*34*
Chain, Hubert Victor Stockton LD 50+50 138 Encina-*1667*
[4]Challender, Harry Morgan Hanna, Wyo. Educ. gr. 910 Ramona, P-p
A.B., Wyoming, 1926
[4]Chamberlain, Percy Ira Reedley Chem. gr. 332 Channing, P-p
B.S., Washington, 1920
[12]Chamberlain, Ross H. Virginia, Minn. Econ. 93·87+38 MP-Box 9, mp
A.B., Stanford, 1930
[12]Chambers, Jack Valentine Oroville Bact. 135·46+21 721 Waverley,P-p
A.B., Stanford, 1930
[5]Chambers, Richard Harvey Tucson, Ariz. Law gr. 427 Webster, P-*537*
A.B., Arizona, 1929
[4]Chan, May Sue Oakland Pol.S. gr. 327 Roble
A.B., California, 1930
Chandler, Dorothy Maud Berkeley Soc.S. 137+139 265 Roble-*1073*
Chandler, Walter E. Santa Ana Econ. 90·44+6 231 Branner-*802*
[1]Chang, Chon Ying Kiangsu, China Engl. 135·13–13 1535Clge.,M-*1283*
[5]Chang, Francis Y. Kwei-Chow, China Educ. gr. 520 Salvatierra-*735*
A.B., Stanford, 1930
[5]Chang, Hui Wen Tsingtao, China Pol.S. gr. 559 Cowper, P-*2547*
A.B., Stanford, 1930
[5]Chang, Yin Lin Kwantung, China Phil. 90·52+58 520Salvatierra-*1952*
[1]Chang, Yu Chun China Geol. gr. Chinese Club-*863*
B.S., Chicago, 1928
[5]Chapin, Leland Taylor Reedsport, Ore. Law gr. 8 Union-*711*
A.B., Willamette, 1925
Chapman, Evelyn Bess San Jose Pre-Clin.90·113+71 201Roble-*2524*
A.B., Stanford, 1930
[4]Chapman, Nellie Mai Santa Ana LD ‡ Roble
Chapman, Newton B. Chardon, Ohio Soc.S. 181+161 Sigma Nu-*1385*
A.B., Stanford, 1930
[24]Chapman, Thomas White Los Gatos Educ. gr. Montezuma Sch.,LG-lg
A.B., Illinois, 1917
[13]Chase, Elsie Leslie San Diego Hist. 45·146+59 Pi Beta Phi-*1918*
A.B., Stanford, 1930
[5]Chatham, William, Jr. San Francisco Econ. 5·149+36 211 Toyon-*2364*
[23]Cheng, Yee-Fung Ningpo, China Phys. gr. 942 Ramona, P-*1006*
B.S., National Southeastern, 1925
[12]Chenoweth, Clyde Garfield Mayfield Econ. gr. 431 Wellesley, M-*591*
A.B., California, 1922, A.M., 1923
[13]Cheo, Yuan-Chen Kiangsi, China Pol.S. gr. 5 Park, Saratoga-*1157*
A.B., San Jose State Teachers College, 1928; A.M., Stanford, 1929

Cherry, Clifford Burns — Rialto — PreMd.90·48+37 — 44EncAv,P-*1196*
[5]Chester, George Avery — San Diego — C.E. gr. — 735 Dolores-*2533*
A.B., Stanford, 1930
[234]Chester, Violet Lercara — Stanford Univ. — Engl.-P.Sp. gr. — 735 Dolores-*2533*
A.B., California, 1923
Chichizola, Tom Lewis — Jackson — Soc.S. 181+52 — Sig.AlphaEps.-*1305*
A.B., Stanford, 1930
Chickering, Robert Parr — Oakland — LD 29+3 — 228 Encina
[3]Chijiwa, Saikichi — Fukuoka-ken, Japan — Econ. ‡ 11–5 — Japanese Club-*598*
[12]Chilcott, Dorothy — Menlo Park — Educ. gr. — Chi Omega
A.B., Stanford, 1929
Chillson, Charles White — Palo Alto — Chem. 123+31 — 551 University, P-p
[5]Chin, Shuyung — Canton, China — Educ. 90·54+46 — Chinese Club-*1934*
Chloupek, Lily Laura — San Francisco — Bact. gr. — 431 Belvedere, SF-*1325*
A.B., Stanford, 1930
[12]Choate, James Virgil — Ada, Okla. — LD 17–17 — 401 Encina-*2621*
[1]Chou, Siegen K. — Anhwei, China — Psych. gr. — Chinese Club-*1119*
A.B., Stanford, 1926, A.M., 1928, Ph.D., 1930
Chowjing, Jack Gee — Edmonton, Alta. — LD 42·47+25 — Chinese Club-*563*
[23]Chrisman, Herman Henry — Palo Alto — Hist. gr. — 273 Addison, P-p
A.B., Stanford, 1922, A.M., 1923
Chrisman, Norman Ellsworth — San Jose — Pol.S. gr. — 695 E. St. James, SJ-sj
A.B., Stanford, 1929
Christensen, Kenneth Chester — Palo Alto — Econ. 173+114 — Sigma Nu-*1385*
Christiansen, Ernest Martin — Mayfield — Educ. gr. — 220 Ash, M-m
A.B., Washington Missionary College, 1919
[4]vonChristierson, Anne C. — San Jose — Educ. gr. — Roble
A.B., San Jose State Teachers College, 1926
[1]Chung, Chung Hsin — Shantung, China — S.Biol. 90· — 318 Lytton, P-p
[4]Church, Ben Mitchell — Alexandria, Neb. — Pol.S. gr. — 334 Union
A.B., Peru State Teachers College, 1929
Church, Carol Porter — Johnstown, Pa. — Engl. gr. — Maybelle, M-Box 194, m
A.B., Stanford, 1929, A.M., 1930
Church, Norval Luther — San Jose — Educ. gr. — 1006 Lenzen, SJ-sj
B.M., Wisconsin, 1925, A.M., 1930
Churchill, Ambrose Sevier — Beverly Hills — Pre-Med. 140+113 — Theta Chi-*1383*
Churchill, E. Perry — Palo Alto — Econ. 9·173+224 — 345 Forest, P-p
A.B., Stanford, 1930
Churchill, Robert Busey — San Diego — LD 20·44+49 — 107 Encina-*2199*
[124]Clapp, Arthur Davis — Berkeley — Econ. 48·95+1 — PhiKappaSig.-*1853*
Clapp, Austin Rhone — Hollywood — LD 85+56 — Phi Delta Theta
Clark, Donald Eugene — Ashland, Ohio — Econ. 89·94+15 — Phi Delta Theta
A.B., Stanford, 1930
[5]Clark, Duncan Ellsworth — Mayfield — Educ. gr. — 1247 Stanford, M-*1917*
A.B., Drake, 1913, A.M., 1915
Clark, Fred Adam, Jr. — Redlands — Med. gr. — 2321 Sacramento, SF-sf
A.B., Redlands, 1928
Clark, John Alfred — Stanford Univ. — C.E. 4·186+88 — 201 Branner-*2052*
A.B., Stanford, 1930
Clark, John Charles — Shelby, Ohio — Phys. gr. — 205 Union
A.B., Ohio Wesleyan, 1925
Clark, Lincoln — Pasadena — Chem. gr. — Phi Kappa Sigma
A.B., Stanford, 1929, Engineer, 1930
Clark, Ned — Ojai — S.Engr. 90·86+61 — Sig.Al.Eps.-*1305*
[12]Clark, Ray Eldon — Berkeley — S.Engr. 153–2 — 358 Kingsley, P-p
[4]Clark, Robert Thomas, Jr. — Nashville, Tenn. — Germ. gr. — 628 Gilman, P-p
A.B., Vanderbilt, 1927, A.M., 1928
[4]Clark, Walter Van Tilburg — Reno, Nev. — Engl. ‡ — 210 Toyon-*1254*

Clark, Warren H. Fairbanks, Alaska S.Engr. 124-46+19 651Gilman,P-p
Clark, Wayne James Los Angeles S.Bus. gr. 855 Waverley, P-p
A.B., Pomona, 1928, M.B.A., Stanford, 1930
Clark, Wellman Albert Kellogg, Ida. Law gr. 527 Encina-*618*
A.B., Stanford, 1929
Clark, William Nunan San Francisco Pol.S. 164+22 Phi Delta Theta
Clarke, Edwin H. Hollywood Econ. 96-36–14 410 Sequoia-*571*
Clarke, Elizabeth Mar San Francisco Engl. 133+32 Delta Gamma-*1366*
Clarke, Lawrence Hamilton SanFrancisco LD sp. 33–5 Firehouse-*1183*
[5]Clarke, Oliver French Myrtle Point, Ore. Educ. gr. 136 Harriet, P-p
A.B., Stanford, 1930
Clarke, Robert E. Oakland Econ. 183+98 Sigmu Nu-*1385*
A.B., Stanford, 1930
Clarke, Robert Montgomery Los Angeles Hist. 182+74 Zeta Psi-*B*
A.B., Stanford, 1930
Clarke, Rosamond Los Angeles Hist. 6-185+137 KappaKappaGam.
A.B., Stanford, 1930
Clarke, Sam Tracy Honolulu, T.H. LD 46+73 200 Encina-*2593*
Clarke, Stephen Kenneth Santa Barbara Econ. 180+151 Sigma Nu-*1385*
A.B., Stanford, 1930
Clausen, Radcliffe Charles Los Angeles S.Engr. 141+171 206 Branner-*2813*
[12]Clawson, Charles Wellington Oxnard LD 30+24 110 Encina-*1137*
[34]Clay, Robert Jack Stockton Soc.S. 100-14+6 102 Sequoia
Cleary, Joseph Patrick Butte, Mont. Bact. 98-40+25 443Kipling, P-*1756*
Clift, Edwin Sturgiss Beverly Hills LD 37–13 251 Encina-*1962*
[4]Cline, Carl Atherton Hollywood LD 538 Lasuen
[1]Cline, Claude Walter Prescott, Ariz. Econ. 121+65 Theta Xi
Clough, Frank, Jr. Kansas City, Mo. LD 88+7 Beta Theta Pi-*1335*
Clouse, Floyd Lodi Econ. 212+254 215 Toyon-*2488*
A.B., Stanford, 1930
[4]Cluxton, Donald Edwin Arcata Pol.S. gr. 543 Forest, P-p
A.B., Stanford, 1928
Clyne, Beatrice Virginia Redwood City LD 91+32 535 Brewster, RC-*1023*
Clyne, James Wallis Redwood City LD 46+24 535 Brewster, RC-*1023*
[5]Coats, Edwin Frederick Oakland Econ. 113+6 AlphaSigmaPhi-*1357*
[1]Coats, Philip L. Oakland Econ. 18-162+37 Al. Sig. Phi-*1357*
A.B., Stanford, 1930
Cobb, Charles Elvan Fresno Econ.-Act.34-151+7 247Brnr.-*672*
A.B., Stanford, 1930
Cobb, Earle Morgan Fresno Econ.Ac.90-46+11 535Cowper,P-p
Cobb, Eldred Thomas Roseburg, Ore. Econ. 118-62+10 556 Encina-*836*
A.B., Stanford, 1930
Coberly, William Bayley, Jr. Hollywood Econ. 180+89 Chi Psi-*1648*
A.B., Stanford, 1930
[1]Cochrell, McEnsie R. Palo Alto Law gr. 925 Guinda, P-p
A.B., Stanford, 1921
[4]Cockins, Robert Santa Monica LD 139 Toyon-*1013*
[2]Coe, Argyle Lee Salem, Ore. LD 3- 444 Encina
[4]Coelho, Louis Joseph Fresno Law gr. 349 Hamilton, P-p
B.S., California, 1926
Coffen, Charles West Portland, Ore. LD 91+52 Chi Psi
[5]*Coffing, Stuart Claude Sacramento Pol.S. 90-35+45 741 Homer, P-*877*
[12]Coffmann, Clifford Merle Montebello Soc.S. ‡ 40–16 804 Bryant, P-*2555*
Cohen, Ernest Philip Butte, Mont. LD 40–4 13 Encina-*714*
Cohen, Milton M., Jr. Beverly Hills Law gr. 526 Encina-*618*
A.B., Stanford, 1929
Cohn, Julian Maxwell San Francisco Med. gr. 2070 Pacific, SF-sf
A.B., California, 1928

Cohn, Roy Barnett Los Angeles Med. gr. 2201 California, SF-sf
A.B., Stanford, 1929
[13]Coil, Charles Antioch LD 71+26 307 Sequoia-*1673*
Coit, Charles W., Jr. East Orange, N.J. Engl.-P.Sp.103+28 245Toyon-*1250*
Colberg, Florence Kathryn Stockton Hist.145+32 DeltaDeltaDelta-*1325*
[4]Colburn, Edna Marjorie Turlock Educ.‡10+0 256 Roble-*2172*
Colburn, J. Reynard Pomona Pre-Med.90·46+44 445Encina-*1855*
Colburn, Wayne Neuhardt Turlock Hist. 90·51+31 204 Sequoia-*2172*
Cole, Creswell Chapin San Francisco Law gr. Beta Theta Pi-*1335*
A.B., Stanford, 1929
Colegrove, Catherine Anne Pasadena Hist. 135·51+49 242 Roble-*2553*
A.B., Stanford, 1930
[12]Coleman, James Valentine San Francisco LD 71–13 Phi Kappa Psi
[13]Coleman, John Joseph, Jr. San Francisco Engl. gr. 630 Lincoln, P
A.B., St. Ignatius, 1929
[12]Coleman, Raymond Joe Long Beach Law gr. 412 Cowper, P-p
A.B., Stanford, 1928, J.D., 1930
Coles, Edwin Covina LD 88+31 Theta Xi
Coles, Otis Calvin, Jr. El Paso, Tex. Econ. 90·42–3 Phi KappaPsi-*1765*
Collie, William J. Worcester, Mass. LD 92+62 Delta Tau Delta-*1363*
Collier, Donald Mill Valley LD 48+47 319 Encina-*1972*
Collins, Barbara Drew Fresno LD 41+44 102 Roble-*1936*
Collins, Calvin G. Palo Alto Econ. 6·176–11 1055 Ashby, P-p
Collins, David Everett Los Angeles LD 50–13 613 Salvatierra-*2694*
[1]Collins, Edgar Archibald San Francisco LD 40–1 Theta Xi
[23]Collins, Keith Ball Palo Alto LD 31+28 1055 Ashby, P-p
Collis, W. H. Langley San Jose Med. gr. 2207 Clay, SF-sf
A.B., College of the Pacific, 1926
[5]Colm, Melba Eileen Durham Educ. gr. 284 Roble-*605*
A.B., Stanford, 1929
Colvin, Donald Longstreet Oakland Pol.S. 127+43 Phi Gamma Delta
[5]Colvin, Jacinth Binford, N.D. Pre-Nurs. 118+45 311 Roble-*2332*
[13]Coman, Catherine Tull San Rafael Fr. gr. Alpha Phi-*1387*
A.B., Stanford, 1930
[124]Combellack, Frederick M. San Francisco Cl.Lit. gr. 531 Encina
A.B., Stanford, 1928
Comfort, William Jabez Stockton S.Engr. 172+95 302 Toyon-*588*
Comings, Mary Benita Ramona LD 99+70 305 Roble-*1168*
[4]Commins, Marie Civill St. Louis, Mo. Soc.S.-Jn. gr. 618 Webster, P-p
B.Jn., Missouri, 1930
Commins, William Dollard St. Louis, Mo. Psych. gr. 521 Cowper, P-p
A.B., St. Joseph's, 1921; A.M., Catholic University of America, 1922
Compton, Ray Jerome Potlatch, Ida. Law 135·35+12 214 Union-*2421*
[4]Comstock, Edith Margie Sacramento Educ. gr. 307 Roble
A.B., San Jose State Teachers College, 1928
[1]Condit, Ira Judson Berkeley Bot. gr. 159 Emerson, P-p
B.S., Ohio State, 1905
[4]Condon, Edna Dean Palo Alto Educ. gr. 593 Salvatierra-*1283*
A.B., University of Oregon, 1929
Conger, Clyde Benson Sacramento Pre-Med. 90·45+48 138 Brnr.-*2228*
[24]Conkle, Byron Hawkins Palo Alto Educ. gr. 216 Fulton, P-p
A.B., Mt. Union, 1913
[4]Conley, Charles Clarence Marana, Ariz. Educ. gr. 115 Alma, P-p
Ph.B., Chicago, 1915; A.M., Stanford, 1929
Conn, Howard James Fresno LD 46·46+72 310 Encina-*2363*
[4]Connable, Horace Peck Kalamazoo, Mich. Hist.‡ 583 Salvatierra
[5]Conner, Doris Elizabeth Los Angeles Soc.S.-Jn.165+124 Kp.AlphaTheta

[23]Conover, Arthur James — Sacramento — Pre-Med.90-28–10 140Branner-*684*
Conradi, Carl — San Francisco — Econ. 5-175+52 310 Toyon-*2665*
A.B., Stanford, 1930
[12]Conron, Harry Maxwell — Bakersfield — Law gr. 624 Lasuen-*1754*
A.B., Stanford, 1927, J.D., 1930
Conroy, Thomas F., Jr. — San Francisco — Med. gr. 2704 Union, SF-sf
A.B., Stanford, 1927
[4]Converse, Roger Adams — Alameda — LD 222 Toyon
Conway, Merritt Frank — Los Angeles — Econ. 92-50+11 406 Encina-*1723*
Cook, David Erving — Flintridge — LD 81+3 Kappa Alpha
Cook, Dorothy Frances — Palo Alto — LD 47-49+45 2305 Emerson, P-p
Cook, Joseph R. — San Jose — Econ. 134+31 240 Branner-*2668*
Cook, Lyle Edwin — Palo Alto — Law gr. 327 Emerson, P-*701*
A.B., Stanford, 1929
[3]Cook, Ralph W. — Los Angeles — LD 74–10 Kappa Sigma-*1326*
Cook, Richard Crothers — Stockton — Phys. 187+95 Sigma Nu-*1385*
A.B., Stanford, 1930
Cook, Stanley J. — San Jose — Law gr. 643 High, P-*2668*
A.B., Stanford, 1928, J.D., 1930
Cooke, Charles Montague — Honolulu, T.H. — Econ. 90-68–2 Phi Delta Theta
Cooke, Frederick James — San Francisco — Econ. 5-148+86 Al. Kap. Lam.-*658*
[4]Cool, Mary Anita — Portland, Ore. — Educ. gr. 346 Roble
A.B., Oregon, 1926
Coombs, Donald S. — Los Angeles — S.Engr. 130+39 247 Toyon-*1294*
Coons, John Calvin — Woodland — S.Engr.90-79+5 27Enc.,P-Bx196,p
[4]Cooper, Alice Cecilia — Modesto — Educ. gr. 624 Lasuen
A.B., Stanford, 1907, A.M., 1908
Cooper, Charles Edward — Los Altos — Econ. 136+46 Burke, LA-*658*
Cooper, Elizabeth Stuart — San Francisco — Engl.138+201 Kappa Alpha Theta
Cooper,GrosvenorWilliam — StanfordUniv. — LD 78+136 Alpha Kap. Lam.-*658*
Cooper, John Marshall — Seattle, Wash. — Pol.S. 25-155+163 541 San Juan
A.B., Stanford, 1930
Cooper, Tom Richardson — Reno, Nev. — Econ. 134+23 Zeta Psi-*B*
Cooper, Tom Ross — Los Angeles — S.Engr. 188+98 Al. Sig. Phi-*1357*
A.B., Stanford, 1930
Cooper, Walter Johnston — Los Angeles — LD 93+95 Delta Upsilon
Cooperrider, Kenneth Albert — Arcata — Engl. 90-46+18 408 Sequoia-*1691*
Cope, Walter Ralph — Bellflower — Germ. 135-45+35 44EncinaAv.,P-p
A.B., Stanford, 1930
[234]Copeland,HerbertFaulkner — Sacramento — Bot. gr. 857 Channing, P-p
A.B., Wisconsin, 1922; M.S., California, 1925
Copley, Frank Olin — Palo Alto — S.Let. 188+325 530 Encina-*1951*
A.B., Stanford, 1930
Cor, Lawrence William — BlackEagle,Mont. — LD 47+17 351 Encina-*1812*
Corbus, William — Vallejo — LD 46+36 121 Encina-*2291*
Cordry, Thomas Wallace, Jr. — Hayward — LD 46+17 319 Encina-*1372*
[5]Cordry, Vernon — Hayward — Engl. gr. 217 Toyon-*1372*
A.B., Stanford, 1930
[1]Cornell, Jack Leonard — Los Angeles — LD 52+43 Phi Kappa Sigma
Cornell, James Payne — Sunnyvale — Chem. 136+83 262 Murphy, S-s
Cornell, Willis Allison — Fresno — S.Engr. 105-72+52 742 Bryant, P-p
Corum, William Thomas — Napa — LD 96+98 308 Branner-*1497*
Cottrell, William Frederick — Burlingame — Pol.S. gr. 947 Webster, P-p
A.B., Occidental, 1925; A.M., Stanford, 1929, Ph.D., 1930
[23]Coughlin, Joseph Leo — San Francisco — LD 36+12 427 Encina
[5]Coulter, Robert Isham — S. Pasadena — Law gr. 202 Union-*2582*
B.S., California Institute of Technology, 1928

[124]Cousins, George Raynal	Eureka	Econ. 123+99	406 Sequoia-*1101*
[2]Cowan, James Bradley	Fresno	LD 35–36	Phi Sigma Kappa-*538*
[5]Cowan, James Wilson	Bakersfield	LD 71–4	Theta Xi
[4]Cowan, Jennie Margaret	Modesto	Math. gr.	550 Salvatierra
A.B., College of the Pacific, 1920			
[4]Cowin, Cleon Clement	Nampa, Idaho	Educ. gr.	230 Emerson, P-p
A.B., William Jewell College, 1921			
Cox, Alvin Joseph, Jr.	San Francisco	Med. gr.	St. Luke's Hosp., SF-sf
A.B., Stanford, 1927			
Cox, Mark Thomas	Cheyenne, Wyo.	LD 84+65	Theta Delta Chi-*1828*
Cox, Wilbur Brent	San Jose	Econ. 90·46+6	96 Fox, SJ-sj
Crable, Francis Robert	Prescott, Ariz.	LD 44+53	249 Encina-*2197*
[214]Crabtree, David M.	San Francisco	S.Engr. 122+45	557 Hmltn,P-*2104*
Craig, Carvel Bothin	San Francisco	Econ. 183+130	118 Toyon
A.B., Stanford, 1930			
[13]Craig, John Charles	Porterville	Pre-Med. 120+93	123 Toyon-*2641*
[1]Craig, Robert Walter	Porterville	LD 14–5	208 Encina-*2641*
[5]Craig, Walter Early	Phoenix, Ariz.	Econ. 122+13	Phi Gamma Delta
[4]Crail, Vera Evelyn	Vernonia, Ore.	Ed.-G.A. gr.	206 Roble
A.B., Puget Sound, 1929			
Cramer, Harold Davidson	Campbell	Pre-Clin. 90·98+78	304 Seq'ia-*597*
A.B., Stanford, 1930			
Cramer, Jerome Paul	San Francisco	LD 87+56	Alpha Kappa Lma.-*658*
[4]Cramer, Sophia	Palo Alto	Educ. gr.	1028 Bryant, P-p
A.B., Stanford, 1904			
Crandall, George Foster	New York, N.Y.	LD 48–4	112 Encina-*2107*
[1]Crane, Katharine More	Applegate	Pol.S.180+71	KappaKappaGamma
A.B., Stanford, 1930			
Cranston, John Montgomery	Escondido	Law gr.	334 Union-*2787*
A.B., Stanford, 1929			
[124]Crary, Catherine	Palo Alto	LD 16·70+36	KappaKappaGamma
Crary, Ralph Ward, Jr.	Palo Alto	Chem. 183+220	305 Union-*727*
A.B., Stanford, 1930			
[1]Crary, Sherman Leonard	Boone, Iowa	Econ. 190+52	601 Coleridge, P-*885*
A.B., Stanford, 1930			
[4]Cravens, Mary R.	Sacramento	Zoöl. gr.	Pacific Grove-pg
A.B., Stanford, 1904, A.M., 1905			
Crawford,CharlesWilliam	Santa Barbara	LD 30·58+19	400 Encina
Crawford, Loyal Calvin	Beverly Hills	LD 102+76	216 Branner-*1122*
Crawford, Stewart Adams	San Francisco	LD 47+38	27 Encina-*972*
[4]Crawford, Thomas Harrison	LosAngeles	LD 46–12	Chi Psi
[1]Creagh, Louis Joseph	Fresno	Pre-Clin. 135·	742 Bryant, P-p
Creagh, Merrick Woodman, Jr.	Burlgme.	Law gr.	1129 Oxford, B-b
A.B., Stanford, 1928, J.D., 1930			
Crebs, William J.	Los Angeles	Econ. 182+28	Delta Tau Del.-*1363*
A.B., Stanford, 1930			
Creighton, Robert Edwin	Phoenix, Ariz.	LD 45·44–2	Delta Chi-*1304*
Crever, James Willis, Jr.	San Jose	Pre-Clin.188+124	16 Bdway, SJ-sj
A.B., Stanford, 1930			
[1]Crisler, Lewis Allen	Los Angeles	Soc.S. 85–9	Delta Upsilon
Crismon, Jefferson M.	Los Angeles	Pre-Med.142+146	611Wvly.,P-*543*
Criswell, Howard Brady, Jr.	Dallas, Tex.	S.Bus. gr.	560 Encina
A.B., Stanford, 1927, M.B.A., 1930			
Crocker, Herbert Arthur	San Francisco	LD 61+61	128 Branner
Crocker, Walter Russell	S. Australia	Hist gr.	562 Gerona-*1047*
[23]Crofoot, Gladys L.	Oakland	Engl.-P.Sp.114+80	Al.Om.Pi-*1367*
Crofoot, Michael John	Omaha, Neb.	LD 44+60	21 Encina-*2229*

[12]Crookshank, Ronald M. A.B., Stanford, 1930	Santa Ana	Econ. 90·91+94	115 Alma, P-*1121*
Crosby, Peter James A.B., Stanford, 1929	Hayward	Law gr.	Kappa Sigma-*1326*
Cross, Charles Mumaw A.B., Stanford, 1930	Stanford Univ.	Geol. 201+149	309 Sequoia-*1206*
[1]Cross, Charles Warren	Ogden, Utah	LD 43–23	242 Toyon-*738*
[4]Cross, Dorothy Embry A.B., Vassar, 1913	Palo Alto	Soc.S. gr.	1005 University, P-p
[4]Crow, Wayne William A.B., Willamette, 1927	Palo Alto	Educ. gr.	650 Columbia, M-m
[234]Cruess, William Vere B.S., California, 1911	Berkeley	Chem. gr.	1466 Scenic, B-b
Crum, Rolland Abbott A.B., Heidelberg, 1926	Richmond	Med. gr.	2180 Washington, SF-sf
[2]Crumly, Harold B.	Woodlake	S.Engr. 99–21	472 University, P-p
Crutchett, William A.B., California, 1927	Berkeley	Med. gr.	923 Santa Fe, B-b
[2]Cuddeback, Murray W. A.B., Stanford, 1926	Palo Alto	Phys. Ed. gr.	228 Santa Rita, P-p
Cull, James Buente A.B., Stanford, 1930	Yakima, Wash.	Chem. 184+200	209 Branner-*1527*
[4]Cullen, Ray Raleigh A.B., McPherson, 1921	LaVerne	Soc.S. gr.	159 Emerson, P-p
Culling, Adelbert Nevin A.B., Stanford, 1930	Beverly Hills	Econ.-Acct.187+203	241Brnr-*1049*
[4]Culver, Benjamin Franklin	Palo Alto	Soc.S. 90·6+5	460 Amherst, M-m
[4]Cummings, Frank Lorenzo A.B., Chicago, 1904, A.M., 1911	Corvallis,Ore.	Educ. gr.	900 Waverley, P-p
Cummings, Harold Roland A.B., Stanford, 1929	Glendale	Med. gr.	2180 Washington, SF-sf
Cummings, Marie E.	Palo Alto	Bot. 153+216	1230 Fulton, P-p
[12]Cummins, J. Ferdinand A.B., Stanford, 1928, A.M., 1930	Le Grand	Hist. gr.	227 Sequoia-*1107*
Cummins, Rowan A.B., Stanford, 1930	Palo Alto	S.Engr. 180+64	Phi Sig. Kap.-*538*
Cunan, Louis Raymond	Richmond	S.Engr. 94·77+25	1020 Rmna, P-p
Cundall, William Edward A.B., Stanford, 1930	Berkeley	Econ. 45·135+54	Phi Sig. Kap.-*538*
[5]Cunningham, Joseph Lyle	San Jose	Pol.S. 96·48+25	101E.St.Jas.,SJ-sj
[3]Curley, Robert Edward Ph.B., Chicago, 1925	Menlo Heights	Math.gr.	Perry,MenloHghts-*2474*
[4]Curran, Benjamin Otto A.B., Washington State, 1924	Aberdeen, Wash.	Span. gr.	845 Homer, P-p
[4]Curtis, Dwight Wesley A.B., College of the Pacific, 1923	San Luis Obispo	Hist. gr.	337 Kipling, P-p
[4]Curtis, Maria Elyce A.B., San Jose State Teachers College, 1923	San Jose	Educ. gr.	249 Washington, SJ-sj
Curtner, Albert Howard	San Jose	LD 43–6	234 Encina
Cushing, Maxine Abbott A.B., Stanford, 1930	Los Angeles	Pol.S. 180+187	301 Roble-*2286*
[13]Custer, Howard Clifton	Venice	LD 90+46	316 Madroño, P-p
[4]Cutler, Guy Vivian A.B., Utah, 1917, A.M., 1918	Lovell, Wyo.	Law gr.	314 Union
[23]Cutshaw, Charles Mac	Brawley	Pre-Med.90·27+13	305Hamilton,P
Cutter, Daniel Charles	San Francisco	S.Engr.141+132	AlphaSig.Phi-*866*
[12]Cutter, Richard Deidrich A.B., Stanford, 1930	Palo Alto	Zoöl. 180+291	627 Webster, P-p
Cutting, Cecil Cooper	Campbell	Pre-Med. 90·48+34	242 Toyon

Cutting, Windsor C. Campbell Med. gr. 2321 Sacramento, SF-sf
A.B., Stanford, 1928
[124]Dachtler, Charles Vincent Pasadena Ec.-Ac. 88·31+5 451 Encina-*1921*
Dahlgren, Dorothy Bernice Fresno Hist. 90·47+60 162 Roble-*2032*
Daily, John Speer Ft. Smith, Ark. LD 43+32 206 Encina-*1937*
Dake, Leland Edmund San Francisco Econ. 138+106 Kappa Sigma-*1326*
Dales, John, Jr. Los Angeles Law gr. 534 Guinda, P-p
A.B., Stanford, 1929
Dalton, Swanton Dorse Beverly Hills Chem. 164+83 Kappa Sigma-*1326*
Dalzell, Walter Whitcomb Glendora LD 71–25 345 Embarcadero, P-p
von Damm, Helene Burlingame Econ. 159+49 Sigma Kappa-*1327*
[34]Damsgard, Lincoln C. San Mateo Math. gr. 123N.Ellsworth,SM-sm
A.B., Union, 1913
Dana, Charles Harrold Decoto LD 46+39 218 Encina-*15*
Danford, Roy Edwin Oakland LD 55+4 304 Encina-*574*
Daniel, John, Jr. San Francisco S.Engr. 143+56 Phi Gamma Delta
Daniels, Albert C. Pueblo, Colo. Med. gr. 507 Encina-*618*
A.B., Stanford, 1929
Daniels, Theodore Thomas San Francisco Econ. 185+4 Alpha Tau Om.-*1384*
A.B., Stanford, 1930
[5]Danna, Charles Harold Campbell Educ. gr. 451 Encina-*15*
A.B., San Jose State Teachers College, 1929
[4]D'Anna, Joseph A. San Jose Educ. gr. 692 N. 15th, SJ-sj
A.B., San Jose State Teachers College, 1928
Danneman, Gerd Orange Econ. 132·48+12 543 Forest, P-p
A.B., Stanford, 1930
Daugherty, Anita Elizabeth Pasadena LD 45+49 335 Roble
[4]Daugherty, Lyman Harry Robinson, Ill. Educ. gr. Stanford Park
A.B., Stanford, 1924, A.M., 1925
[5]Daugherty, Virginia Marie Palo Alto Engl. 15·78–2 566E.Crscnt,P-*1366*
[1]Davant, Sydney Madge San Diego Phyl. 115·65+49 AlphaOm.Pi-*1367*
A.B., Stanford, 1930
[4]Davenport, Martin W. Palo Alto LD ‡ 410 Kipling, P-p
David, Harold Williams San Francisco LD 93+51 306 Sequoia-*2115*
Davidson, Elizabeth Nicoll Santa Barbara LD 95+147 Kappa Kappa Gamma
Davidson, Helena Lansing Santa Barbara Soc.S.181+159 Kappa Kappa Gam.
A.B., Stanford, 1930
[5]Davidson, Janet Chapman Menlo Park LD 44–5 Menlo Park-*506*
[5]Davis, Burt Lincoln, Jr. Palo Alto Pre-Med. gr. 1505University,P-p
A.B., Stanford, 1929
[4]Davis, Chester Verner Ruth, Nev. Educ. gr. 334 Union-*1173*
B.S., Utah Agricultural, 1930
[1]Davis, Don Passmore Long Beach Econ. 94+16 Phi Kappa Psi
[5]Davis, Francis Ellsworth Delano Pol.S. 112+90 105 Branner-*2753*
Davis, Fred Jay Westwood Med. gr. 2180 Washington, SF-sf
A.B., Stanford, 1929
[4]Davis, Gilbert James Nevada City Educ. gr. 327 Union
A.B., Chico State College, 1930
[234]Davis, Joseph Harold San Francisco LD 31+36 405 Encina
Davis, Nelson Beaumont, Jr. Los Angeles LD 91+37 216 Sequoia-*2056*
Davis, Roland Chenoweth Berkeley LD 90+35 Kappa Alpha
Davis, Spencer Edward Los Angeles LD 93+77 Sigma Nu-*1385*
Davis, Stanley Spencer Westwood Med. gr. 2180 Washington, SF-sf
A.B., Stanford, 1928
[4]Dawson, Olive L. Palo Alto LD‡48+20 138 Rinconada, P-p
Dawson, Ray Elmer Santa Ana Hist. 107+18 Sigma Nu
[4]Dawson, William Robert Oakland Educ. gr. 223 Toyon
A.B., California, 1925

Day, Harriet Ring — San Francisco — Econ. 141+125 — Alpha Om. Pi-*1367*
[4]Day, Howard C. — Sacramento — S.Biol. gr. — 330 Union
A.B., Lawrence College, 1924; A.M., Stanford, 1926, Ph.D., 1928
[5]Dayton, John Gordon — Long Beach — Chem. gr. — 555 Encina-*1256*
A.B., Stanford, 1930
Deahl, John Linden, Jr. — San Francisco — Pol.S. 140+7 — Phi Kappa Sigma
[12]Deahl, Katharine — San Francisco — Psych. 166+23 — Gam.PhiBeta-*1337*
Deakers, Roderick Paul — Los Angeles — Med. gr. — 2136 California, SF-sf
A.B., Stanford, 1928
Dearborn, Robert Leland — Fairfield — LD 50+3 — 350 Encina-*2371*
[12]Dearborn, Terry Hamilton — Blythe — Econ. 111+23 — 544 Encina-*1797*
[5]Deck, John, Jr. — Santa Monica — Pre-Med. 53-52+4 — 108 Encina-*56*
Decker, Richard Warren — Oakland — Soc.S. 122+28 — 206 Branner-*573*
[1]Decker, Thomas R. — Oakland — LD 91–20 — Delta Upsilon
[12]DeCou, Herbert Wesley — San Leandro — Econ. 180+63 — Kappa Sigma-*1326*
A.B., Stanford, 1930
[23]De Domenico, Anthony — San Francisco — LD 31+15 — 120 Encina
[4]DeGroot, Dudley S. — Menlo Park — Educ. gr. — Menlo School, MP-mp
A.B., Stanford, 1924, A.M., 1929
DeGroot, Edward B., Jr. — Sierra Madre — Hist. 111+77 — Phi Delta Theta
[12]DeHaan, William — Zeeland, Mich. — Law gr. — 506 Mayfield-*957*
A.B., Hope, 1928
[134]van Deinse, Francina C. — Pasadena — LD 54+3 — Delta Gamma-*1366*
Deirup, Theodora Edith — Chico — Span. 180+145 — Del. Del. Del.-*1325*
A.B., Stanford, 1930
DeLaney, Colton — Porterville — Chem. 84-52+26 — 434 Encina-*2198*
[4]Delano, Narcissa — San Diego — Educ. gr. — 302 Roble
A.B., San Diego State Teachers College, 1930
[2]Delatour, Helen — Palo Alto — Fr. gr. — Alpha Omicron Pi-*1367*
A.B., Stanford, 1928, A.M., 1930
Delmas, Bert Charles — San Francisco — LD 45+6 — 332 Encina-*1551*
Delphey, William E. — Chino — Med. gr. — 2422 Clay, SF-sf
A.B., Southern California, 1926
DeLucchi, Joseph Dominic — San Francisco — Pre-Med. 131+10 — 214 Branr.-*2665*
[124]Demaree, Delzie — Benham, Ind. — Bot. gr. — 255 Homer, P-p
A.B., Indiana, 1914; S.M., Chicago, 1921
[5]Dement, Alice Louisa — Myrtle Point, Ore. — Engl. gr. — Madroño-*1332*
A.B., Stanford, 1922, A.M., 1923
[1]DeMotte, Caryl Edwin — Ukiah — LD 17–4 — 206 Encina-*1547*
DeMotte, Theodore Mitchell — Ukiah — Soc.S.-Jn. 145+231 — 304 Brnr.-*1547*
[134]Denney, Albert Lord — Los Angeles — Pol.S. 125+79 — AlphaTauOm.-*1384*
[4]Dennis, William Albert — Bakersfield — Math. gr. — 521 Lasuen
A.B., Redlands, 1929
[4]Denny, Charles Foster — San Mateo — LD — 515 Clark, SM-sm
[1]Denton, George Gilbert — Paris, Texas — Chem. 88- — 948 Ramona, P-p
[4]De Paquette, Helena M. K. — Gonzales — Span. gr. — 628 Webster, P-p
A.B., Arizona, 1913
[4]Derbyshire, Lucile — Santa Barbara — Educ. ‡ — 175 Roble
[5]Desjardins, Ulise Jos. — Coral Gables, Fla. — Econ. 81+1 — Boathouse-*2814*
DeSmet, Delbert Henry — San Jose — Pre-Cl. 101-93+95 — 482Hicks,SJ-sj
A.B., Stanford, 1930
Detert, Gunther Richard — San Francisco — LD 44+13 — 362 Encina
Deuel, John Bockée — Santa Barbara — LD 88+5 — Sigma Nu-*1385*
[12]Devereux, John William — Honolulu, T.H. — Bact. 105-78+35 — 627 Homer, P-*141*
A.B., Stanford, 1930
[234]Devine, Ralph Anthony — San Francisco — Econ. 128-30+3 — 963Valencia,SF-sf
[5]Devlin, Berchman Rapp — San Francisco — Econ. 153+43 — Phi Delta Theta

Devlin, Leo John, Jr.	San Francisco	S.Engr. 166+77 Phi Delta Theta
DeVore, Albert Reginald	El Centro	Soc.S.-Jn. 87·48+19 463Rthvn,P-p
DeWeese, Raymond W.	Portland, Ore.	LD 47+13 29 Encina-*2765*
Dexter, Gregory George	Hillsborough	Soc.S. 90·103+30 444 Encina-*593*
Dey, Dorothy	New York, N.Y.	LD 40+3 227 Roble-*1844*
Diaz, J. Thomas	Cuzco, Peru	Pre-Med. 134+143 319 Alma, P-p
Dibble, Dan M.	Portland, Ore.	LD 74–19 237 Branner-*1468*
[1]Dickenson, Charles William A.B., Stanford, 1926	Berkeley	Law gr. 1915 Berryman, B-b
Dickenson, Richard Wagner	Stockton	LD 90+128 115 Toyon-*1008*
Dickey, David B.	Donna, Texas	LD 92+156 511 Bowdoin, M-*1884*
Dickson, Harold A.	Portland, Ore.	Econ. 140+32 137 Toyon-*2587*
[124]Diediker, Paul L.	Spokane, Wash.	Geol. 135·29+17 731 Emerson, P-p
Dienstein, William	Taft	Soc.S. 141+88 246 Toyon-*1240*
Dietrich, Frank Sigel A.B., Stanford, 1930	Boise, Idaho	Pre-Cl. 187+164 307 Branner-*1468*
Dietrich, Ruth Edna	Cleveland, Ohio	LD 46+81 304 Roble-*2523*
Dietrich, Stephen Mann A.B., Stanford, 1930	Stockton	Pol.S. 190+146 203 Toyon-*2668*
Dietz, Fred C.	Oakland	LD 74+19 219 Sequoia
[12]DiIullo, Daniel Carlo	Denver, Colo.	Bact. 148+52 Menlo Park-*1828*
[12]Dill, Walter John, Jr. A.B., Stanford, 1930	Los Angeles	Econ. 185+17 Alpha Sig. Phi-*1357*
[5]Dill, William Abbott A.B., Stanford, 1930	San Mateo	Zoöl. gr. 328 Union-*2191*
[4]Dillenburg, Rose Helen	Santa Barbara	Span. 128·31+29 300 Arglo, RC-rc
[12]Dilley, Clark David, Jr. A.B., Stanford, 1928, J.D., 1930	Glendale	Law gr. 545 Encina-*546*
[124]Dillon, Edward Thomas A.B., Stanford, 1930	Los Angeles	Law gr. Delta Kappa Eps.
Dinsmore, Robert Laird A.B., Stanford, 1930	Oroville	Chem.135·45+33 625Hamilton,P-p
[12]Dixit, Kanhaiya Lall Buland Shahr,India A.B., Stanford, 1930		Educ. 3·181+13 1130Calif.,M-*1066*
Dixon, Henry Audell A.B., Stanford, 1930	Los Angeles	Econ. 135·50+5 325 Union-*1882*
Dixon, Harry Sterling	Knights Landing	S.Engr. 140+108 420 Ramona, P-p
Dixon, Phil Raymond	Oakland	LD 96+7 Kappa Sigma-*1326*
[4]Dixon, Robert Sanford A.B., State College of Washington, 1923	La Grande, Ore.	Educ. gr. 551 University, P
[12]Djung, Lu-Dzai A.B., Shanghai, 1923, A.M., 1927	Kwangtung, China	Educ. gr. Chinese Club-*596*
[1]Dodd, Onslow Sinclair A.B., Stanford, 1927	Palo Alto	Law gr. 1020 Ramona, P-p
Dodge, Horace Jackson	Oteen, N.C.	LD 87+105 Pacific Grove-pg
[1]Dodson, Lawrence Edgar	Palo Alto	LD 33–18 Portola, P-*2818*
[1]Doeg, John H.	Santa Monica	LD 72+7 Delta Kappa Epsilon
Doerr, Albert Edward A.B., Stanford, 1930	Mexico	S.Engr. 181+80 Delta Kappa Eps.
[5]Dohrmann, Emilie B.	San Francisco	LD 45+59 100 Roble-*2512*
Dohrmann, George W., Jr.	Stockton	Econ. 112+26 Delta Upsilon
Dohrmann, Jack Fred A.B., Stanford, 1930	San Francisco	Mil.S. 10·170+42 Phi Sig. Kp.-*538*
[5]Dohrmann, Louise J.	San Francisco	Germ. 136+165 KappaKappaGam.
Dole, Richard Alexander	Honolulu, T.H.	Econ.114+29 PhiSigmaKappa-*538*
Dole, Wilfred H.	Hoquiam, Wash.	LD 88+27 Theta Chi-*1383*
Dolfini, Walter William	Eureka	Pre-Med. 90·41+2 314 Seq.-*2706*

Domoto, Kaneji — Oakland — LD 46+29 — 338 Encina-*2366*
[1]Domoto, Wakako — Oakland — LD 60+41 — 224 Roble-*2366*
[2]Donald, Gordon Chapman — Portland, Ore. — Engl.-P.Sp.93·16+7 — 176Bryant,P-p
Doner, Sidney Stoddard — Santa Barbara — S.Bus. gr. — Encina-*1222*
A.B., Stanford, 1928, M.B.A., 1930
Dong, Collin Henry — Watsonville — Med. gr. — 2107½ Webster, SF-sf
A.B., California, 1926
Donkin, Forrest W. — Modesto — Soc.S.-Jn. 90·42+13 — PhiKappaSig.
Donlon, Peter Albert — Antioch — LD 51+28 — 247 Encina-*2665*
Donnell, Mary Orrilla — Los Angeles — LD 42+35 — 345 Roble-*1916*
[23]Donner, Ludwig — Pasadena — S.Engr.96·29+4 — 635Bryant,P-*1921*
[4]Doran, John Webster — Long Beach — Law gr. — 650 Lasuen
A.B., California at Los Angeles, 1930
Doran, Madeleine Kathryn — San Diego — Engl. gr. — 1245 Webster, P-*606*
A.B., Stanford, 1927; A.M., Iowa, 1928; Ph.D., Stanford, 1930
Dorchak, Alexander — Belt, Mont. — LD 92+43 — 404 Sequoia
Dorgeloh, Justin Redman — Santa Cruz — LD 45+67 — 405 Encina
Dorman, Raphael Morrison — SantaFe, N.M. — LD 87+31 — Phi Gamma Delta
Dorman, Vroman James — Parlier — Law gr. — 324 Union-*1266*
A.B., Southern California, 1929
Dorn, Conrad L. — Kelseyville — Geol. 113+17 — 257 Toyon-*627*
Dorn, Lewis R. — Kelseyville — LD 82–9 — 249 Toyon-*627*
[4]Dorrel, Jean Aemile — Chicago, Ill. — Ed.-G.A. gr. — 930 Waverley, P-p
Ph.B., Chicago, 1916; A.M., Columbia, 1923
[4]Dotson, George Edgar — Escondido — Educ. gr. — 215 Union
A.B., San Diego State Teachers College, 1926; A.M., Stanford, 1927
Doub, William Kelsey — Berkeley — LD 96+57 — Phi Kappa Psi
Doudoroff, Michael — San Francisco — LD 46+58 — 204 Encina-*2028*
[12]Doughty, Elizabeth Bentley — Stnford Univ. — Fr. 26·154+128 — Kingscote
A.B., Stanford, 1930
Douglas, Asa Vanderpool — Palo Alto — Pol.S. 77·70–4 — Sigma Alpha Eps.
[1]Douglass, Don Minor — San Francisco — LD 9–14 — 402 Encina-*1023*
[12]Dow, Lloyd Wilson — Oakland — Econ. 5·176+9 — Theta Del. Chi-*1828*
A.B., Stanford, 1930
[1]Dow, Wallace Allen — Palo Alto — Econ. 93·62–12 — The. Del. Chi-*1828*
Dowell, Virgil C. — Lindsay — Pol.S. 190+68 — 333 Encina
A.B., Stanford, 1930
Downey, Wallace Kerrick — San Francisco — Law gr. — 330 Union-*1363*
A.B., Stanford, 1927, LL.B., 1930
Downing, Helen Louise — Norman, Okla. — Soc.S. 21·123+127 — Kap.Kap.Gam.
[4]Doyle, Eva Gertrude — Santa Ana — Fr. gr. — 207 Roble
A.B., Pomona, 1926
[12]Doyle, Laird Houston — Los Angeles — Engl. 188+59 — Chi Psi-*1648*
A.B., Stanford, 1930
[5]Drake, Herbert Belding — Mill Valley — Econ. 93·49+86 — 3 Union-*71*
Draper, Murray — San Bernardino — Law gr. — 331 Union-*2668*
A.B., Stanford, 1929, J.D., 1930
[1]Dreier, David Collin — Shawano, Wis. — Law gr. — 407 Encina-*882*
Graduate, U.S. Naval Academy, 1925
[3]Dreisbach, Roy Claud — Exeter — Educ. gr. — Y.M.C.A., SJ-sj
A.B., San Jose State Teachers College, 1930
[5]Dresch, Francis William — Sharon, Pa. — LD 47+53 — 525 Hawthorne, P-p
Drew, Katherine MacArthur — San Francisco — Engl.-P.Sp.180+164 — 263Rble-*1442*
A.B., Stanford, 1930
[5]Dreyfus, Benjamin Ballinger — San Mateo — Fr. 135+94 — 109 Toyon-*2202*
Dreyfus, Francis Peter — San Mateo — LD 46–2 — 107 Encina-*695*
[12]Driggs, Edwin Ogden — Oakland — S.Engr.27·167+141 — Al.TauO.-*1384*
A.B., Stanford, 1930

Driscoll, John Albert	San Francisco	Phyl. 101·39+9	420 Ramona, P-p
[5]Driscoll, John Lawrason	San Mateo	Econ.173+36	Delta Kappa Epsilon
[5]Driscoll, Thomas Albert	San Mateo	Econ. 139–6	Delta Kappa Epsilon
Druehl, Hugo William	San Francisco	LD 95+73	136 Branner-*1474*
Drury, Marion Overholser	Palo Alto	C.E. gr.	326 Waverley, P-p
B.S., Otterbein, 1926			
[1]Drury, Virginia Helen	Palo Alto	Engl. 67·96–3	566 Lincoln, P-p
Ducato, Fred	San Francisco	Econ. 135·46+25	Phi Kappa Psi
A.B., Stanford, 1930			
[5]Duckett, Harold Leslie, Jr.	Hollywood	Law gr.	Alpha Delta Phi-*J*
A.B., Stanford, 1929			
Dudfield, John Jury	Palo Alto	Econ. 61·67+7	Sigma Nu-*1385*
Dudley, Harry Ward	Ventura	Law gr.	730 Bryant, P-p
A.B., California at Los Angeles, 1929			
[4]Dugger, Ellis Dean	Superior, Ariz.	Educ. gr.	538 Cowper, P-p
A.B., Kentucky, 1926			
Dull, Paul S.	Winlock, Wash.	LD 45+12	116 Encina-*716*
[1]Dunbar, Ernest A.	Mayfield	Min. gr.	1550 California, M-m
A.B., Stanford, 1929			
Dunbar, Francis Flanders	Manchester, Vt.	S.Biol. gr.	559 Seale, P-p
A.B., Harvard, 1928; A.M., Stanford, 1929			
[13]Duncan, Carl Dudley	Stanford Univ.	Zoöl. gr.	University Park-*4*
A.B., Stanford, 1923, A.M., 1928			
[4]Duncan, Doris	Oklahoma City, Okla.	LD ‡	Roble
Duncan, Gilmore Adelbert	Mayfield	Educ. gr.	728 Calif., M-m
A.B., Stanford, 1929, A.M., 1930			
Duncan, Sheldon Forbes	Piedmont	Econ. 9·127+43	Kappa Alpha
[5]Duniway, Ben Cushing	Northfield, Minn.	Law gr.	539 Encina-*2591*
A.B., Carleton, 1928			
Dunlap, George Wesley	Sonora	S.Engr. 138+149	129 Emerson, P-p
Dunlap, Sue Betty	Los Angeles	Soc.S. 122+97	Kappa Kappa Gam.
[12]Dunn, Edwin Genyaun	Canton, China	Soc.S.-Jn. gr.	168 University, P-p
A.B., Stanford, 1929			
[12]Dunn, Gerald C.	Los Angeles	LD 39+2	353 Encina-*1207*
Dunn, Oliver Charles	Los Angeles	Phil. 180+118	Chi Psi-*1648*
A.B., Stanford, 1930			
[4]Dunn, Sydne Bernice	San Francisco	Educ. gr.	300 Roble
A.B., San Francisco State Teachers College, 1930			
Durbin, William Jennings	Palo Alto	S.Bus. gr.	PaloAlto-Rt.1,Bx451,p
A.B., Tennessee, 1924, A.M., 1925			
[23]Durel, Evelyn Frances	San Francisco	LD 31+36	159 Oregon, P-p
[12]Durfey, Janette	Fresno	Engl. 86·100+92	Al. Omi. Pi-*1367*
A.B., Stanford, 1930			
Duryea, Helena	Palo Alto	Hist. 181+101	328 Roble
A.B., Stanford, 1930			
[4]Dutton, Doris	Los Altos	LD ‡	Los Altos-Box 341, la
Dutton, Gayle Roberds	Los Altos	Chem. 201+74	524 Encina-*147*
A.B., Stanford, 1930			
Dutton, Mona B.	San Francisco	Phil. 196+270	Kappa Alpha Theta
A.B., Stanford, 1930			
Dutton, S. Fletcher	Carmel	Econ. 183+178	209 Toyon-*1161*
A.B., Stanford, 1930			
Dwyer, Edward Joseph	Ansonia, Conn.	LD 42–13	121 Encina-*2752*
Dyer, G. Kimball	Auburn	Law gr.	Sigma Nu-*1385*
A.B., Stanford, 1929, J.D., 1930			
Dyer, Hector Monroe	Inglewood	Econ. 137+63	Delta Kappa Epsilon
[5]Dyer, Richard Ward	Oakland	LD 82–4	216 Sequoia
Eagal, John Henry, Jr.	Stockton	Econ. 90·43–8	Phi Delta Theta

[4]Eagan, Harry B.	Phoenix, Ariz.	Educ. gr.	731 Homer, P-p
Ph.B., Chicago, 1926			
Eardley, Carl Lindberg	Los Angeles	Law gr.	316 Union-*105*
A.B., Stanford, 1927, LL.B., 1930			
[5]Earl, Orrin Kinsley, Jr.	Altadena	Geol. 127+141	Phi Gamma Delta
Eastman, Ben Bangs	San Mateo	LD 45+6	200 Encina-*2231*
Eastman,GeorgeLockwood,Jr.	Hollywood	Econ. 133+151	Alpha Delta Phi-*J*
[1]Eastman, Sam Palmer	Woodside	LD 9–14	200 Encina-*2231*
Easton, Edward Montague	La Jolla	Geol. 135+92	Alpha Delta Phi-*J*
[5]Easton, George W.	San Francisco	LD 45–2	136 Toyon-*818*
Eaton, Bourne Goodridge	Stanford Univ.	Phys. gr.	543 Encina-*1205*
A.B., Stanford, 1929			
[4]Ebel, Bartel Edwards	Redlands	Germ. gr.	10 Union-*1269*
A.B., McPherson, 1909; A.M., Kansas State, 1910			
Eberhard, Franklin K.	La Grande, Ore.	LD 48+59	127 Encina-*2011*
Eberhart, George Perrin	Oakland	Econ.-Acct.132+36	Delta Chi-*1304*
Eberwine, William Edward	Sacramento	S.Engr. 94·20–3	108 Sequoia-*975*
Ebey, Ellison Frederick	Berkeley	Econ. 104+54	616 Forest, P-p
Eckart, Harriet Louise	Pasadena	Hist.133+97	Kappa Kappa Gamma
[13]Eddie, Charles Park	Los Angeles	Pol.S. 180+74	Delta Tau Del.-*1363*
A.B., Stanford, 1930			
[4]Eddie, James L.	Los Angeles	LD ‡	Union
[23]Edelen, Harold Driscoll	Piedmont	LD 29+29	444 Encina
[4]Edgerton, Amélie Frances	Santa Barbara	Soc.S. 15+25	173 Roble-*1307*
[1]Edmonds, R. Ward	Santa Barbara	Chem. 184+99	216 Encina
A.B., Stanford, 1930			
Edmonds, Warner, Jr.	Santa Barbara	Pol.S. 136+110	Phi Kappa Sigma
Edwards, David Samuel, Jr.	Piedmont	LD 88+37	104 Sequoia-*1953*
[4]Edwards, Ethel May	Bakersfield	Psych. ‡	159 Roble
Edwards, Harry	Santa Rosa	Soc.S.-Jn. 90·47+43	406 Enc.-*2043*
Edwards, Martha Frances	San Jose	LD 92+107	Kappa Kappa Gamma
Edwards, Page Lawrence	Hollywood	LD 59+23	429 Encina-*1298*
[12]Edwards, Raymond Elbert	Hollywood	LD 40·39+2	44 Encina-*1209*
Edwards, Thomas Charles	San Jose	LD 41–9	329 Encina-*2801*
§Edwards, William Seymour	Brklyn,N.Y.	M.E. gr.	1032 Channing, P-*832*
A.B., Yale, 1928			
Edy, John North	Berkeley	Pol.S. gr.	854 Euclid, B-b
B.S., Missouri, 1905; A.M., California, 1926			
Eells, John Shepard, Jr.	Ross	Law gr.	637 Alvarado-*2412*
A.B., Yale, 1928			
Eells, Sarah Lucia	Ross	Pol.S. 150+58	Kappa Alpha Theta
Effron, Leonard L.	San Diego	LD 94+69	227 Branner-*696*
[4]Egan, Ardis Gale	Silverton, Ore.	LD ‡	325 Union
Ehret, Louis David, Jr.	Sacramento	Econ. 90·41–9	106 Sequoia-*2138*
[5]Ehrhorn, Charles Springer	Balboa	Geol. 16·91+1	Sigmu Nu-*1385*
Ehrman, Thomas Daniel	Menlo Park	Span. 133+62	121 Toyon-*2665*
[12]Ehrsam, David M.	Enterprise, Kans.	Chem. 5·178+18	401 Lytton, P-p
A.B., Stanford, 1930			
[1]Ehrsam, Herbert Jacob	Enterprise,Kans.	S.Engr. 95·69–13	444 Encina-*990*
[23]Eisner, Helen Frances	San Francisco	LD 29+37	224 Roble-*662*
Eisner, Robert Milton	San Francisco	LD 70+22	202 Toyon-*662*
[3]Eklof, Carl Martin	San Francisco	Educ. gr.	1395 Masonic, SF-sf
B.S., Idaho, 1916; A.M., Stanford, 1930			
Eklund, Raymond T.	San Francisco	Phyl. 135·45+25	230 Union-*1030*
A.B., Stanford, 1930			

§ Deceased, June 26, 1930

Eldred, W. Noel	Burlingame	S.Engr.90·45+64	107Branner-*1646*
[1]Eldridge, Charles David	Pasadena	Econ. 102·15+0	Sigma Nu
Eldridge, John Harmon A.B., Stanford, 1930	Burlingame	Econ.-Acct. 90·95+115	417 Encina
Eldridge, Samuel Engineer, Colorado School of Mines, 1924	San Francisco	Med. gr.	2136 California, SF-sf
[4]Elias, Helen M.	Los Angeles	LD	Roble-*1279*
[5]Elias, Ted J. A.B., Stanford, 1928	Los Angeles	Law gr.	759 Middlefield, P-*90*
[12]Elkins, Beatrice Adelma	Palo Alto	Soc.S. 121+93	1100 Fulton, P-p
[14]Elkins, John Courtland	Santa Rosa	S.Let. 86·66+21	229Carrillo,SR-sr
Elliott, Earl Conarroe, Jr. A.B., De Pauw, 1927	Burlingame	Law gr.	441 Foothill-*1048*
Elliott, Edwin Windsor A.B., Stanford, 1930	Pomona	Soc.S. 45·135+56	Sigma Chi-*628*
[1]Ellis, Agler B.	Stockton	Law 37·116+103	230 Union-*1005*
[5]Ellis, William Percival	St. Helena	S.Engr. 92+56	315 Sequoia
Elmer, Anton D. A.B., Stanford, 1929	Manila, P.I.	Med. gr.	1935 Webster, SF-sf
[23]Elting, John R.	Billings, Mont.	LD 69+55	611 Waverley, P
Elwood, A. Wayne	Hollywood	LD 90+70	Beta Theta Pi-*1335*
[124]Ely, Bernard Colean A.B., Stanford, 1929	Bakersfield	Pol.S. gr.	189 Cowper, P-p
Emry, Merle Frederic A.B., Stanford, 1930	Palo Alto	Soc.S.-Jn.180+218	333Encina-*1052*
Endress, Elizabeth Wright	Berkeley	LD 31+10	112 Roble-*2226*
[12]Engberg, Ralph Cornwall	Seattle, Wash.	Pre-Med. 92·0–13	416 Encina
Engle, R. Jane	Palo Alto	Psych. 43·89+75	737 Bryant, P-p
[5]English, George Duncan	San Francisco	Econ. 5·160+70	131 Branner-*2757*
English, William Ernest	San Francisco	LD 90+5	114 Toyon-*2757*
Engquist, William Harold	Oakland	LD 44+12	315 Encina-*1156*
Engwicht, Harry A.B., Stanford, 1926	San Jose	Phys. gr.	405 N. 3d, SJ-sj
[4]Engs, Eleanor Vernon A.B., Trinity, 1924	San Jose	Germ. gr.	NotreDameCon.,RC-rc
[4]Enos, Emma Clarita A.B., California, 1920	Sacramento	Educ. gr.	181 Lytton, P-p
[4]Enright, William F.	Barberton, Ohio	LD	Peninsula Creamery, P-p
Enterline, Elmer E., Jr. A.B., Stanford, 1930	Los Angeles	Soc.S. 7·173+167	133 Toyon-*893*
[23]Erath, Joseph Anthony	San Francisco	LD 31+20	208 Encina-*2586*
[2]Erich, Reuben Robert	San Jose	M.E. 96–13	782 S. 11th, SJ
[4]Erickson, Alfred C. B.B.A., Washington, 1923	Carnation, Wash.	Educ. gr.	515 Ruthven, P-p
Erickson, Herbert Shulze A.B., Willamette, 1926; M.B.A., Stanford, 1930	Salem, Ore.	S.Bus. gr.	301 Union-*1159*
Erlin, Elizabeth	Palo Alto	LD 93+120	200 Coleridge, P-p
Erlin, Frank William, Jr. A.B., Stanford, 1930	Palo Alto	S.Engr. 198+129	Sig.Al.Eps.-*1351*
[5]Erskine, James Donald	Dearborn, Mich.	LD 57+29	355 Encina-*1096*
Esberg, Alfred Mendel A.B., Stanford, 1930	Loyola	S.Engr.186+164	650Clmbia,P-*1140*
[5]Espinosa, José Manuel	Stanford Univ.	Hist. 166+204	632 Foothill-*1555*
Etcheverry, Alfred Starr	Berkeley	LD 45+77	118 Encina-*2177*
Etter, William Kirby A.B., Stanford, 1929	Los Angeles	Law gr.	115 Alma, P-p
Euler, Theodore Edward A.B., Stanford, 1930	San Francisco	Econ. 95·86+19	Alpha Kp.Lm.-*658*

[23]Evans, A. Morgan — Santa Monica — LD 13·30+25 — 249 Encina-*681*
[4]Evans, Bernerd Clark — Petaluma — Pol.S. ‡ — 224 Toyon-*1060*
[5]Evans, Edmund A. — Margaretville, N.Y. — E.E. gr. — 201 Union-*917*
E.E., Rensselaer Polytechnic, 1926
Evans, Edwin Ben — Oil Center — Pol.S. 89·46+40 — 102 Sequoia-*2195*
[234]Evans, Elliott Arthur P. — Santa Cruz — Hist. gr. — 583 Salvatierra
A.B., San Jose State Teachers College, 1929
Evans, J. Clinton — Twin Falls, Idaho — Econ. 149+146 — 135 Toyon-*2221*
[23]Evans, Kenneth Russell — Glendale — LD 30+9 — 353 Encina
Evans, Mariana — Riverside — Psych. 185+183 — Pi Beta Phi-*1918*
A.B., Stanford, 1930
Evans, Rosemary Robinson — Escondido — LD 42+33 — 306 Roble-*1943*
[5]Evans, Tindall — Naco, Ariz. — Econ. 176+15 — Phi Kappa Sigma
[1]Evans, Victor B. — Los Altos — LD 42–15 — LA-Rt. 1, Box 19, la
[1]Evans, William Augustus — Sonora,Mexico — Law gr. — Phi Kappa Sigma
A.B., Stanford, 1927, LL.B., 1930
Everett, Leonard, Jr. — Shanghai, China — S.Engr. 90·43–2 — 529 Addison, P-p
[4]Everett, Ralph Waldo — Sacramento — Hist. gr. — 1641 California, M-m
A.B., Stanford, 1903
[4]Evers, Wendell H. S. — Biggs — Educ. gr. — 325 Princeton, M-m
A.B., Stanford, 1926
[4]Everton, Lily Gertrude — Olympia, Wash. — Engl. gr. — 340 Roble
A.B., McMasters, 1926
[1]Ewell, Robert Offutt — Corozal, C.Z. — Econ. 90·96+23 — 444 Encina-*2661*
A.B., Stanford, 1930
Ewing, Roy Emerson — Mill Valley — LD 84+23 — Phi Gamma Delta
Exelby, Paul — Los Angeles — Med. gr. — Mt. Zion Hosp., SF-sf
A.B., Stanford, 1927
Eyster, Helen Sue — Royal Oak, Mich. — Soc.S. 102·47+23 — 159 Roble-*2795*
[4]Facer, Alice Woodsum — Los Altos — LD 15+0 — LA-Box 391, R 1, la
[4]Fackt, Elizabeth — Denver, Colo. — Pol.S. gr. — 267 Roble
A.B., Washington, 1912, A.M., 1913
Fagerberg, Dixon, Jr. — Prescott, Ariz. — Econ. 129+206 — 611 Waverley-*667*
Fair, J. Wilbur — San Jose — S.Engr. 139+120 — 229Branner-*2757*
[4]Fairfax, John Pollock — San Mateo — LD ‡ — 424 Turner, SM-sm
Falger, William, Jr. — Modesto — Econ. 90·90+1 — 561 Encina-*110*
A.B., Stanford, 1930
Falk, Bessie Harris — Boise, Idaho — Econ. 75·47+55 — 115 Roble-*2452*
Falk, Karl L. — Piedmont — LD 94+177 — Delta Chi-*1304*
[8]Fallaw, Lee McCarrell — Greenville, S.C. — Engl. gr. — 526 Mayfield
A.B., Furman, 1929
Fallon, Joseph Patrick, Jr. — Atherton — Econ.107+15 — Atherton-Box391,mp
Fannin, Paul Jones — Phoenix, Ariz. — Econ. 88·94+29 — 740 Homer, P-p
A.B., Stanford, 1930
Farber, Leslie Hillel — Douglas, Ariz. — LD 60+81 — 244 Encina-*616*
[13]Farmer, Peggy — San Gabriel — Soc.S. 121+96 — Gam. Phi Beta-*1337*
Farrand, Stephen McKevett — Los Angeles — Engl.-P.Sp. 132+30 — 600Fthil.-*1971*
Farrier, George Franklin — San Jose — Hist. 137+14 — 1328 Lincoln, SJ-sj
[4]Farrow, Mason Lee — Dyke, Colo. — Chem. gr. — 659 Salvatierra
B.S., Colorado Agricultural, 1929
Farwell, Lyndon — Los Gatos — S.Bus. gr. — 222 Sequoia-*2112*
A.B., Stanford, 1929
Fatjo, Mary Teresa — Santa Clara — Span. gr. — 646 Alvarado
A.B., College of the Sacred Heart, 1928; A.M., Stanford, 1930
Faulb, Jared A. — Cleveland, Ohio — S.Bus. gr. — 534 Guinda, P-*1189*
A.B., Stanford, 1929
Faus, Norton Taft — Salt Lake City, Utah — Econ. 138+58 — Theta Xi

Favre, Henry Hartman	San Mateo	LD48+17	15Hobart,SM-Bx561,sm
Fawcett, Vance Wilbur	Hollywood	Econ. 114–6	Delta Kappa Epsilon
Fawkes, Arthur Francis B.S., California, 1928	Pasadena	S.Bus. gr.	212 Union-*52*
[5]Fearey, Hiram Day B.S., Illinois, 1929	Chicago, Ill.	Educ. gr.	682 Columbia, M-m
[23]Feichtmeir, Armand C.	Wausau, Wis.	LD 46·30+14	136 Encina-*541*
Feldheym, Jean Spencer	San Mateo	Pre-Med. 138+155	317 Sequoia
Feliz, George Comte A.B., Stanford, 1930	Santa Rosa	Econ. 90·91+114	319 Sequoia-*592*
Fellows, Frederick D. A.B., Stanford, 1928	Santa Rosa	Med. gr.	2422 Clay, SF-sf
[3]Feng, Yukon A.B., Washington, 1930	Nanking, China	Pol.S. gr.	245 Ramona, P-*2234*
[4]Fenton, Frank L. A.B., Stanford, 1923, A.M., 1925	Santa Rosa	Engl. gr.	260 Toyon-*1336*
[23]Ferguson, Chesley G.	Berkeley	S.Engr. 18·120–10	240Toyon-*1357*
Ferguson, John Bodley	Los Angeles	LD 7·44+47	217 Encina-*2375*
[13]Ferguson, Miriam Claire	Visalia	LD 68–8	Delta Gamma-*1366*
Ferguson, William C. A.B., Stanford, 1930	Philadelphia, Pa.	Pol.S. 135·49+8	Delta Upsilon
Fernald, Gordon Hildreth	San Bernardino	LD 51+31	352 Encina-*1753*
[4]Ferns, Alice Marion	Burlingame	Span. ‡	1500 Cortez, B
Ferns, John Hamilton A.B., Stanford, 1930	Burlingame	E.E. gr.	303 Sequoia
Fernstrom, John Archie	Napa	S.Engr. 170+31	419 Encina-*642*
Ferrante, Peter Joseph A.B., Stanford, 1928, J.D., 1930	Monterey	Law gr.	243 Toyon-*43*
Ferrebee, Joseph Wiley A.B., Stanford, 1930	Auburn	Chem. 90·94+150	662 Mirada
Ferrino, Louis	Sacramento	S.Engr. 97·41–8	108 Sequoia-*1901*
Ferry, John Douglass	Rogue River, Ore.	LD 100+200	313 Sequoia
[1]Fetzer, Jacob H.	Lockeford	Pre-Med. 103+84	Theta Xi
[1]Fickert, Marshall Marron A.B., Stanford, 1930	San Francisco	S.Engr. 194+32	222 Toyon-*2352*
[4]Field, Charles D.	Alhambra	LD 13+2	328 Union
Field, Edward Winter A.B., Stanford, 1930	Orange	Psych. 90·90+16	311 Union-*2016*
[4]Field, Frances G. B.S., Skidmore College, 1928	Saratoga Springs, N.Y.	Educ. gr.	Miss Harker's Sch., P-p
[234]Field, Palmer	Alameda	LD 25–6	224 Encina-*835*
Field, Sally Miller A.B., Stanford, 1930	Stanford Univ.	Phyl. gr.	648 Alvarado
[12]Fifield, Walter Walworth A.B., Southern California, 1920, A.M., 1925	Los Angeles	Hist. gr.	530 Webster, P-p
Finch, Nathan Cochrane	Glendale	Econ. 134+58	Delta Upsilon
[13]Findley, Gordon Edward	Palo Alto	Econ. 97+8	Zeta Psi-*B*
[234]Fingado, Jack Lankenau A.B., Stanford, 1929	Sacramento	C.E. gr.	210 Sequoia-*23*
[23]Fink, Emil Edward A.B., Stanford, 1930	Lodi	Econ. 46·135+53	Phi Sig.Kap.-*538*
[1]Finnegan, Andrew Jackson	Sacramento	Educ. 110·45–12	117 Cowper, P-p
[4]Finney, John Edgar	Argos, Ind.	Soc.S.-Jn. 91·	627 Homer, P-p
[4]Finney, Margaret M. A.B., Fresno State Teachers College, 1929	Fresno	Educ. gr.	550 Salvatierra
[12]Firth, James Spencer	San Francisco	LD 46–23	Beta Theta Pi-*1335*
Fisher, Caroline Eileen	San Francisco	LD 89+12	332 Roble-*2232*

Fisher, Edwin Young	Santa Paula	LD 45+28	432 Encina-*2444*
[1]Fisher, Lewis Benedict	Portland, Ore.	LD 26–24	Branner-*2293*
Fisher, Mary Betts A.B., Stanford, 1930	Portland, Ore.	Soc.S. 184+81	Kappa Alpha Theta
[5]Fisher, Raymond Henry A.B., Stanford, 1929	Menlo Park	Educ. gr.	Menlo Park-Box 314, p
Fisher, Richard Allen A.B., Stanford, 1930	Cristobal, C.Z.	Econ. 84·100+5	537 Encina-*2488*
Fisher, Robert Light	Bellingham, Wash.	Educ. 85·104+135	241 Toyon-*2337*
Fiske, J. Brooks	Triunfo	LD 82+36	216 Branner-*2271*
Fitting, Ralph Ulf, Jr.	Los Angeles	LD 85+65	104 Branner
[4]Fitzhugh, William M., Jr.	San Francisco	S.Biol. 118·109–4	228 Kipling, P
Fixott, Richard Scott	Portland, Ore.	Pre-Med. 144+103	Delta Chi-*1304*
Fleck, Herman Stanley	Santa Monica	LD 89–8	Sigma Alpha Eps.-*1305*
Fleharty, Clarence Roy	Porterville	Pol.S.90·46+45	1506Collg.,M-*2189*
Fleishhacker, Herbert, Jr.	Menlo Park	Soc.S. 167+27	Kingscote-*2721*
Fleming, Bruce Lundie	Lahaina, T.H.	LD 96+9	17 Toyon-*1562*
[4]Fleming, Grace Elisabeth A.B., Oregon, 1928	Watsonville	Engl. gr.	Roble-*1080*
Fleming, James Foss A.B., Stanford, 1930	Lahaina, T.H.	Pre-Clin. 5·185+4	204Toyon-*1562*
[5]Fleming, Jessie Edrie A.B., Stanford, 1930	Sanger	Engl. gr.	247 Roble-*1496*
[12]Fletcher, Ferdinand Thum	San Diego	LD 57+28	Phi Delta Theta
Fletcher, Lawrence Salmons A.B., Stanford, 1928, J.D., 1930	Palo Alto	Law gr.	346 Madroño, P-p
[12]Fletcher, W. Donald A.B., Stanford, 1930	Vancouver, Wash.	Soc.S. 97·85+71	Delta Chi-*1304*
Flickinger, Don Davis A.B., Stanford, 1929	Long Beach	Med. gr.	2321 Sacramento, SF-sf
Flint, Calvin Charlie A.B., Stanford, 1928	Long Beach	Hist. gr.	313 Toyon-*611*
[1]Flohr, Edward M. A.B., Stanford, 1929	Wallace, Idaho	S.Bus. gr.	Phi Sigma Kap.-*538*
Flood, H. Lee A.B., Stanford, 1930	Ponca City, Okla.	S.Engr. 185+60	706Cowper,P-*1894*
[1]Flora, Vern Uthel A.B., Ashland, 1923	Palo Alto	Educ. gr.	612 Waverley, P-p
[1]Flores, Edward Manuel	San Jose	LD 0–17	320 N. 7th, SJ-sj
Flyer, Harry A.B., Stanford, 1930	Los Angeles	Pre-Clin. 135·49+52	627 Hmr, P-p
Fogg, Edward Park A.B., Stanford, 1930	S. Pasadena	Econ. 93·96+73	207 Branner-*2623*
Folda, Engelbert Frank, Jr.	Omaha, Neb.	LD 48+31	21 Encina-*2502*
[234]Fonacier, Tomás Sugitan A.B., California, 1922	Berkeley	Hist. gr.	Hotel Ramona, P-*887*
Fong, Henry Wing	Sacramento	Econ. 82·49–1	Chinese Club-*11*
[4]Foote, Robert Irving	San Francisco	LD	116 Toyon
[1]Forbes, Elizabeth	San Francisco	LD 47+46	Delta Gamma
Forbes, Robert Parsons	San Francisco	Econ. 100+30	Alpha Tau Om.-*1384*
Force, Eunice Helena	Piedmont	LD 29+14	219 Roble-*2304*
[1]Force, Raymond Charles, Jr.	Piedmont	LD 5–14	203 Encina-*1886*
[1]Ford, Betty A.B., Stanford, 1929	San Francisco	Engl. gr.	520 Cowper, P-p
[4]Ford, Hoyt A.B., Simmons, 1923; A.M., Texas, 1926	Abilene, Texas	Educ. gr.	455 Forest, P-*965*
[4]Ford, Robert Emmet A.B., California at Los Angeles, 1930	Glendale	Law gr.	557 Lasuen-*1335*

Forker, Paul Welch A.B., Stanford, 1928, J.D., 1930	Los Angeles	Law gr.	312 Union-*1067*
Forker, Will, Jr.	Los Angeles	LD 36–14	207 Encina-*1067*
[4]Forney, Burton E.	Waterloo, Iowa	Educ.‡14+6	175 Webster, P-p
[12]Forney, George Henry	Parsons, Kansas	LD 75–9	Delta Tau Delta-*1363*
[14]Forster, Albert Edward A.B., Stanford, 1930	Los Angeles	Law gr.	Zeta Psi-*B*
Forward, James Dillon, Jr.	San Diego	LD 43+24	329 Encina-*1616*
Foss, John Harrison, Jr.	Maui, T.H.	LD 85+73	104 Sequoia-*726*
Foster, BruceEllsworth A.B., Colorado College, 1927; A.M., Oregon, 1929	Colo. Sprgs, Colo.	Phys. gr.	204 Union
Foster, Homer Peter B.S., Washington State, 1914	Palo Alto	Hist. gr.	559 Everett, P-*41*
Fouch, Florence Louisa A.B., Stanford, 1928	Maxwell	Med. gr.	2295 California, SF-sf
Foultz, F. Ward A.B., Stanford, 1930	Glendale	Engl. 90·92+106	134 Toyon-*2461*
[5]Fountain, William Edwin	Merced	LD 49+44	109 Encina-*2451*
[12]Fowle, John Miller A.B., Stanford, 1930	Palo Alto	S.Engr.30·156+127	744Guinda, P-p
[24]Fowle, Louise	Los Altos	Psych. 111·15+10	Roble
Fowle, Ruth Eleanor	Palo Alto	LD 68+21	744 Guinda, P-p
Fowler, Frederick Hall	Palo Alto	LD 42–3	200 Encina-*1791*
Fowler, Wynette Lorene A.B., Stanford, 1929, A.M., 1930	San Jose	Math gr.	270 Roble-*1105*
Fox, Alfred Lewis A.B., Stanford, 1930	Los Angeles	Pre-Clin.28·156+74	208Brnr.-*2792*
[4]Fox, Arthur Julius Ph.B., Chicago, 1924	Eau Claire, Wis.	Educ. gr.	1110 Waverley, P-p
Fox, Charles Marvin A.B., Stanford, 1930	San Diego	Pol.S. 181+116	Zeta Psi-*B*
[4]Fox, Clement Silas A.B., Minnesota, 1916	Gilbert, Ariz.	Educ. gr.	750 Palo Alto, P-p
[5]Fox, Denis Llewellyn A.B., California, 1925	Berkeley	S.Biol. gr.	544 Bowdoin, M
Fox, Norman Clay	Cottonwood	Pre-Med. 109+58	249 Toyon-*2668*
[1]Frame, Hermet Melven	Selma	LD 58–12	1110 Waverley, P
Franceschi, Andrés A., Jr. A.B., West Virginia, 1929	Santurce, P.R.	Med. gr.	2180 Washington, SF-sf
Francis, Cyril Chalmers A.B., Stanford, 1928	Los Angeles	Med. gr.	2136 California, SF-sf
[3]Francis, Lionel	New Bedford, Mass.	Pre-Med.135·41–22	821Wvrly,P-p
[12]Franck, Fred Christian	Santa Clara	S.Engr. 90·122–10	208Squoa-*1491*
Franich, Anthony John	Watsonville	LD 44+77	235 Encina-*1734*
Frankel, Martin A.B., Stanford, 1930	San Jose	Econ. 52·128+5	San Jose-*646*
[2]Frankel, Philip A.	Los Angeles	Econ. 103–29	515 Lytton, P
[4]Franklin, John P. A.B., Stanford, 1928	Palo Alto	Econ. gr.	130 Fulton, P-p
Fraser, George Frederick	Antioch	LD 43+7	247 Encina
[23]Fraser, Robert McKibben A.B., Stanford, 1927	StanfordUniv.	Span. gr.	Chestnut, M-*932*
Frazier, Alfred Egelmann A.B., Stanford, 1928	Berkeley	Law gr.	506 Encina-*1542*
[5]Fredericks, James Blakeley	Los Angeles	Hist. 149+28	Delta Upsilon
Fredrickson, Robert Lee A.B., Stanford, 1929	San Francisco	Law gr.	303 Union
[4]Freeman, Chris A.B., Stanford, 1929	St. Louis, Mo.	Phys.Ed. gr.	Toyon-*2665*

[23]Freeman, F. Kemper	Bellevue, Wash.	LD 86–19	Kingscote
[4]Freeman, George Walker	Stockton	Educ. gr.	686 Columbia, M-m
A.B., Spokane, 1920; A.M., Washington, 1925			
[134]Freeman, Jack Reginald B.	Los Angeles	LD 26–8	348 Encina
Freeman, Jacob George	Los Angeles	S.Bus. gr.	329 Hawthorne, P-p
A.B., California at Los Angeles, 1927; M.B.A., Stanford, 1930			
Freeman, Robert Lee	San Francisco	S.Engr. 121+155	122 Toyon-*2668*
Freibrun, J. Louis	Los Angeles	Med. gr.	2321 Sacramento, SF-sf
A.B., California at Los Angeles, 1928			
[13]French, Richard Louis	Los Angeles	Pre-Med. 151+147	Del. T. D.-*1363*
French, William Massey	San Diego	LD 89+64	Sigma Nu-*1385*
[5]Frentrup, R. Lud	Berkeley	Econ. 171+48	DeltaKappa Epsilon
[234]Frick, Anne D.	Woodside	Engl.-P.Sp.116+56	Kp.Al.T.-*1708*
[4]Friede, George W.	Portland, Ore.	Law gr.	Union
A.B., Dartmouth, 1927			
[4]Friedlander, Paul	Seattle, Wash.	LD	326 Union-*2315*
Friedman, Margaret	San Francisco	LD 43+25	331 Roble-*2404*
Friend, Maurice Robert	Los Angeles	Psych. 38·159+226	208 Brnr.-*2803*
A.B., Stanford, 1930			
Friendlich, Richard Joseph	San Francisco	LD 103+81	238 Toyon
[4]Fries, Paul R.	San Francisco	LD	324 Union
[4]Frink, Spencer Charles	Redfield, Iowa	Educ. gr.	Studio Shop, Brlngm-b
B.S., Ottawa, 1912; A.M., Drake, 1928			
[23]Frisbee, Lynn Buck	San Francisco	Econ. 5·177+66	301 Branner-*618*
A.B., Stanford, 1930			
[2]Frohlich, Irving Albert	San Francisco	Econ. 21·159+3	692 Mirada
A.B., Stanford, 1930			
Frost, Benjamin Burt	Los Angeles	S.Engr. 192+121	Al.Tau Om.-*1384*
A.B., Stanford, 1930			
Frugé, August	The Dalles, Ore.	LD 91+104	433 Encina-*1561*
Fry, Hubert Otis	Huntington Park	LD 59+13	108 Encina
Fry, John O.	South Gate	LD 46+44	108 Encina-*1278*
[1]Fry, Leland Ray	Saratoga	Econ. 93–18	Saratoga
Fry, Marietta	Palo Alto	Law gr.	Kappa Kappa Gamma
A.B., Stanford, 1928, J.D., 1930			
[12]Fry, Mary Isabel	Los Angeles	Engl. gr.	205 Roble-*683*
A.B., California at Los Angeles, 1928			
[1]Fry, Percy W.	Saratoga	LD 75–32	406 Ramona, P-p
Fryer, Gail'ard	Santa Barbara	Econ. 93·83+26	226 Union-*1017*
[12]Fuhrmann, William Adam	Burlingame	Bot.‡6+6	142 Victoria,Burlingm.-b
[4]Fulkerson, Charles M.	Ukiah	Educ. gr.	311 Toyon-*1933*
A.B., Stanford, 1911, A.M., 1912			
Fulkerson, C. Ronald	Ukiah	LD 95+83	211 Sequoia-*1933*
Fullenwider, Frank Irwin	Riverside	LD 45+35	208 Encina
Fuller, Douglas R.	Stockton	S.Bus. gr.	546 Encina-*618*
A.B., Stanford, 1928, M.B.A., 1930			
Fuller, Mort	Lancaster	LD 45+61	117 Encina-*961*
Fung, Lung	Sebastopol	Pre-Clin. 90·94+67	925 Wvly., P-p
A.B., Stanford, 1930			
[5]Furgason, Waldo H.	Stanford Univ.	Zoöl. gr.	10 Union-*2493*
A.B., St. Olaf, 1924			
[5]Gabbert, Howard Markland	Ventura	LD 94+19	345 Forest, P-p
Gafford, James A., Jr.	Huntington Park	Med. gr.	2321 Sacramento, SF-sf
A.B., Whittier, 1926			
Gage, Margaret Esther	Palo Alto	LD 91+0	Delta Gamma-*1366*
Gage, Warren Stanley	Elk Grove	S.Engr.90·91+56	207Sequoia-*1381*
A.B., Stanford, 1930			

[12]Gagos, Hubert Kisag — San Francisco — Soc.S.-Jn.5·176+174 — 301 Brnr.-*618*
A.B., Stanford, 1930

[4]Gaiser, Joseph Harold — Menlo Park — Econ. gr. — Menlo School, MP-mp
B.S., Whitman, 1921, M.S., 1926

[4]Galbraith, C. Layton — McGill, Nev. — Educ. gr. — 804 Waverley, P-p
B.S., Utah Agricultural, 1928

Galbraith, Howard John — Bakersfield — Mil.S. 5·161+12 — 222 Toyon-*2224*

[4]Galgiani, John Veiller — San Francisco — LD — 122 Toyon

Gallıher, Edgar Wayne — San Jose — Geol. gr. — SJ-Rt. 2, Box 243, sj
A.B., Stanford, 1929

[1]Galt, Ellis Cameron — Modesto — Soc.S.-Jn. 90·90+24 — 533 Encina
A.B., Stanford, 1930

[12]Gamble, Harry Paul — Compton — Econ. 96·84+62 — 305 Alma, P-p
A.B., Stanford, 1930

[4]Gammage, E. Melvin — Casa Grande, Ariz. — Educ. gr. — 241 Toyon-*1258*
A.B., Northern Arizona State Teachers College, 1930

Gange, John Frederic — Palo Alto — LD 87+127 — 579 Everett, P-p

Gant, Hoyt Raymond — Modesto — Med. gr. — 1935 Webster, SF-sf
A.B., Stanford, 1929

Gantner, John Oscar, Jr. — San Francisco — Econ. 129+87 — Phi Gamma Delta

Gantner, Vallejo — San Francisco — LD 46+37 — 362 Encina-*2545*

[12]Gardenier, William H. — San Francisco — Pre-Med.142+227 — 557 Encina-*1991*

[12]Gardiner, James Harding — Oakland — LD 10–26 — 323 Encina-*2361*

[23]Gardner, Clyde Henry — Los Banos — LD 28–1 — 251 Encina-*806*

Gardner, John William — Palo Alto — LD 44+19 — 257 Kingsley, P-p

[12]Gardner, Thomas Lemuel — Bakersfield — Span. 123+36 — 536 Hamilton, P-p

[14]Garibotto, Merven John — Stockton — Pol.S. 178+13 — 260 Toyon-*2532*

Gariepy, Glen Bernard — Lusk, Wyo. — Geol. gr. — 538 Encina-*1997*
A.B., Wyoming, 1926

[4]Garrett, Grace Gertrude — Colton — LD — 324 Roble-*1427*

[34]Garrett, Homer L. — Baton Rouge, La. — Educ. gr. — 948 Ramona, P-*91*
A.B., Louisiana State, 1914; A.M., Columbia, 1921

[1]Gaspar, Jack McClain — San Francisco — LD 5·81–16 — 133 Toyon-*1245*

Gatch, Jeannetta Allen — Palo Alto — Engl. gr. — 373 Everett, P-p
A.B., Stanford, 1929

Gates, Earl Francis — Santa Maria — LD 85·43+10 — 252 Everett, P-p

[12]Gates, Lester Kenneth — Whittier — Span. gr. — 215 Union-*915*
A.B., Whittier, 1929

[4]Gatley, Miriam — Bakersfield — Engl. gr. — 550 Salvatierra
B.S., Colorado Agricultural, 1922

Gaw, Emir Allen — Columbus, Ohio — LD 89+68 — 113 Branner-*626*

[4]Gawthrop, Howard E. — San Francisco — LD — 209 Union

Gay, Thomas Robinson — Alhambra — LD 5·120+7 — Theta Delta Chi-*2126*

Gaynor, Edmund Patrick — Oakland — Pre-Clin. 99·92+30 — 544 Encina
A.B., Stanford, 1930

Geary, Harriet Agnes — Los Angeles — Soc.S. 136+107 — Alpha Phi-*1387*

Geddes, Robert Essery — San Diego — Econ. 90·47+22 — 327 Waverley, P-p

[4]Geddis, Terence Bernard — San Diego — Educ. gr. — 592 Alvarado
A.B., San Diego State Teachers College, 1929

George, Bert Morse — Lewiston, Idaho — Educ. gr. — 426 Waverley, P-p
A.B., Idaho, 1909; A.M., Stanford, 1930

[4]George, Howard W. — Cloverdale, Ore. — Educ. gr. — 426 Homer, P-p
A.B., Willamette, 1923

[4]George, John R., Jr. — Rock Springs, Wyo. — Educ. gr. — 605 Gilman, P-p
A.B., Linfield, 1926

George, Paul Oldham — Santa Barbara — Econ. 90·45–15 — 124 Emerson, P-p

[5]Gerhardt, Edwin Lawrence — Santa Ana — Pol.S. 90·49+65 — 333 Waverley, P-p

[12]Gerhart, Harold Dwight — Tracy — LD 30+0 — 42 Encina-*2283*

Gerhart, Leo Ray — Tracy — Econ. 136+74 — 219 Toyon-*2681*
[3]Gettins, Harry Downing — San Francisco — Econ. 90·15–10 — Phi Kappa Sigma
Getts, George Robert — Pasadena — S.Engr. 122·46+5 — 325 Union-*1853*
[34]Gettys, Embry M. — Decatur, Texas — Hist. gr. — 251 Hawthorne, P-*675*
A.B., Baylor, 1914; A.M., Chicago, 1916
Gevurtz, William Sanders — Portland, Ore. — Pol.S. 92·56+57 — 321 Cowper, P-p
Gibbons, Henry, III — San Francisco — Med. gr. — 3491 Pacific, SF-sf
A.B., Stanford, 1927
[5]Gibbs, Allison Johnson — Manila, P.I. — Law gr. — 1445 Tasso, P-*1414*
A.B., Stanford, 1928
Gibbs, Finley Johnson — Manila, P.I. — Soc.S. 186+320 — 1445Tasso,P-*1414*
A.B., Stanford, 1930
Gibbs, Helen M. — Sioux Falls, S.D. — Engl. gr. — 565 Salvatierra-*2544*
A.B., Sioux Falls, 1927
[1]Gibbs, Zack E. — Balboa — LD 50–26 — 425Embarcadero,P-*525*
Giberson, Augustus Frederic — Watsonville — Med. gr. — 2180 Washington, SF-sf
A.B., Stanford, 1929
Giberson, Ralph Harold — Richmond — LD 90+16 — Phi Kappa Psi
Gibson, Beverly Clay — N. Sacramento — S.Bus. gr. — 313 Sequoia-*2467*
A.B., Stanford, 1929
[4]Gibson, Margie — Waterproof, La. — Engl. gr. — 583 Salvatierra
A.B., Louisiana State Normal School, 1927
Gibson, Mary Constance — Palo Alto — Span. 22·88+37 — 804 Forest, P-p
[23]Gibson, Ora James — San Francisco — Pub.H.gr. — 2180Washington,SF-sf
A.B., Stanford, 1929, A.M., 1930
[4]Gibson, Robert Earl — Walnut Creek — Educ. gr. — 750 Bryant, P-p
A.B., Valparaiso, 1919
[23]Gibson, William Roland — Palo Alto — Med. gr. — 185 Bryant, P-p
A.B., California at Los Angeles, 1928
[5]Giese, Arthur Charles — Mayfield — S.Biol. gr. — 525 Bowdoin, M-*1061*
B.S., Chicago, 1927
[2]Giese, Raina Ivanoff — Mayfield — S.Biol. gr. — 525 Bowdoin, M-*1061*
B.S., Chicago, 1927
[6]Giesecke, Ernest — Marble Falls, Texas — Germ. 119+82 — Sigma Nu-*1385*
[6]Gieseke, Walter — Stockton — Germ. gr. — 303 Union
A.B., Stanford, 1925, A.M., 1926
[12]Giffen, Ralph Royal — Sacramento — Pol.S. 90·15+5 — 316 Sequoia-*1013*
[3]Gifford, John Pearl — Berkeley — Bact. gr. — 593 Alvarado
A.B., Stanford, 1928
[1]Gilbert,GordonLorenzo — HuntingtonPark — Phil. 109+65 — Sigma Nu-*1385*
[34]Gilbert, Luther Calvin — Berkeley — Educ. gr. — 1637 LeRoy, B-b
B.S., Mississippi, 1918; M.S., Virginia, 1924
[4]Gilbert, Marguerite B. — Mountain View — Engl.-P.Sp. gr. — 1492Villa,MV-mv
A.B., Emmanuel Missionary College, 1925
[5]Gilbert, William Isaac, Jr. — Los Angeles — Law gr. — MP-R. 2, Bx. 36J, mp
A.B., Stanford, 1928
[4]Gilbert, William Paul — Mountain View — Hist. gr. — 1492 Villa, MV-mv
A.B., Emmanuel Missionary College, 1924
Gilbreath, Robert Irvin — Monte Vista,Colo. — Econ. 138+34 — Al. Tau Om.-*1384*
Gildersleeve,John Stoutenburgh — Ft.Bragg — LD 82+12 — Alpha Sigma Phi-*1357*
Gill, Lake S. — Palo Alto — Bot. gr. — 550 Forest, P-Box 76, p
A.B., Stanford, 1923
[12]Gillespie, Doris Kildale — Palo Alto — Bot. gr. — 739 Bryant, P-*922*
A.B., Stanford, 1926, A.M., 1927
[12]Gillespie, John Wynn — Albany, Ga. — Bot. gr. — 510 Encina
B.S., Georgia, 1923; A.M., Stanford, 1926, Ph.D., 1930
Gillespie, Lucy Frain — Edwardsville, Ill. — Econ. 90·81+36 — Gam. Phi Be.-*1337*
[4]Gillespie, Paul Smith — Greeley, Colo. — Educ. gr. — 659 Salvatierra
B.S., Muskingum, 1914; A.M., Colorado, 1929

Gillett, Raymond Earl	Hoquiam, Wash.	Pre-Med. 127+64	Theta Chi-*1383*
Gillette, Edwin	Pasadena	LD 45+18	204 Encina-*1757*
Gillham, Omer Creighton	Los Angeles	LD 40+22	201 Encina-*938*
Gillig, Gladys	San Francisco	Hist. 134+204	Kappa Kappa Gam.
Gillingham, John Rowley, Jr.	Berkeley	LD 51+12	Alpha Kappa Lam.-*982*
[4]Gillis, Hugh Wilson	San Diego	Educ. gr.	592 Alvarado
A.B., San Diego State Teachers College, 1927			
Gilman, Charles Edward, Jr.	Berkeley	LD 39·60+71	112 Encina-*561*
Gilman, John Cary	San Francisco	Econ. 180+29	731 Homer, P-p
A.B., Stanford, 1930			
Gilman, Philip Kingsnorth	San Francisco	LD 142+16	731 Homer, P-p
[12]Gilmour, Craddock M.	Price, Utah	Econ. 180+26	Sig.Al.Epsilon-*1305*
A.B., Stanford, 1930			
Girvetz, Harry Kenneth	Pasadena	Phil. 125+30	131 Toyon
[5]Girzi, Edward Ernest	San Francisco	LD 80+47	Kingscote
Gist, Adèle Gilman	San Diego	Soc.S. 6·176+276	Al. Om. Pi-*1367*
A.B., Stanford, 1930			
Gist, Fred Lincoln	San Luis Obispo	Econ. 136+5	242 Toyon-*1855*
[5]Givan, Mary Alverna	Sacramento	Fr. gr.	Delta Gamma-*1366*
A.B., Stanford, 1930			
Glasgow, Charles, Jr.	Long Beach	LD 45+51	309 Encina-*1586*
Gledhill, Keith	Santa Barbara	LD 45·44+19	326 Encina-*1762*
[4]Glenn, Sam Merrill	Eureka	LD	113 Toyon
[23]Glover, Frederic O.	Palo Alto	LD 29+34	427 Encina-*996*
[4]Goddard, Glenn William	Palo Alto	Educ. gr.	682 Clmbia, M-Bx305,m
A.B., Stanford, 1925			
[23]Godett, Michael Robert	Los Angeles	Med. gr.	2180 Washington, SF-sf
A.B., Occidental, 1927			
Godfrey, Marcus Lucius, Jr.	S. Pasadena	LD 46+42	210 Encina-*1885*
[4]Goelz, Howard Fenner	Sonora	Econ. 15+5	246 Toyon
[4]Gold, Rubin Leonard	San Francisco	Law gr.	305 Union
B.S., New York, 1929			
[5]Goldie, Edward James	San Francisco	Law gr.	Kappa Alpha
A.B., Stanford, 1930			
Goldsmith, Egbert Erion	Sacramento	Econ. 142+79	250 Toyon-*2668*
Goldsmith, Richard Seller	San Francisco	LD 47+47	322 Encina-*552*
Goldwater, RobertWilliams	Phoenix,Ariz.	Econ. 90·46+39	Sigma Chi-*628*
[4]Good, Roy	Fort Bragg	Educ. gr.	Stanford Univ.
[12]Goodall, William Archie	Long Beach	Econ. 115–6	Phi Sigma Kp.-*538*
[23]Goodell, Fred O.	Isleton	LD 82+0	242 Toyon-*1855*
Gooden, Reginald Heber	Los Angeles	Span. 131+73	555 Waverley,P-*861*
[234]Goodloe, David Short	Hollywood	LD 15·24–11	535 Byron, P-*1321*
Goodman, Edward	Phoenix, Ariz.	Soc.S. gr.	426 Waverley, P-p
A.B., Redlands, 1929			
[1]§Goodspeed, Barton Alan	Miami, Fla.	Hist. 5·99+18	761 Bryant, P-p
Goodwin, Francis Roy	Boise, Ida.	LD 41+21	236 Encina-*919*
Gordon, Artha Dorice	Redwood City	Math. 90·65+54	RC-Box 52, rc
Gordon, Bill Henry	Sacramento	Econ. 90·37–5	308 Sequoia-*1854*
[23]Gordon, Charles M.	Berkeley	Econ. 90·30+8	212 Sequoia-*1193*
Gordon, Charles Taylor	Connersville, Ind.	S.Engr. 93·74–21	548 Alvrdo-*1623*
Gordon. Frank Lansdell	San Francisco	Econ. 90·93+12	540 Encina-*992*
A.B., Stanford, 1930			
[2]Gordon, Grant	Caldwell, Idaho	C.E. gr.	552 Alvarado-*2436*
B.S., College of Idaho, 1926			

§ Deceased, November 22, 1929.

Gordon, JosephHarold,Jr. Tacoma,Wash. Soc.S.-Jn.141+103 222 Toyon-*1234*
Gordon, Robert Dean San Carlos LD 122+119 215 Sequoia-*1178*
[23]Gorham, Charles Henry Morris, Ill. S.Engr. 136+49 Del.TauDel.-*1363*
[23]Gorham, Henry Douglas Redwood City Econ. 159+5 RC-RFD, Box 90, rc
[5]Gould, Burnell Oakland Soc.S.-Jn. 123+45 120 Toyon-*1855*
Grace, Henry Purinton San Francisco LD 92+88 128 Branner-*2047*
Grace, William H. Mt. Vernon, Wash. Soc.S.-Jn. 8·135+65 Theta Xi
[4]Graham, Donald Duane Palo Alto Educ. gr. 1121 Bryant, P-p
A.B., San Jose State Teachers College, 1929
[5]Graham, William Rabe Pasadena LD 74+11 Delta Upsilon
Grannis, Marcella Hazel Burlingame Fr. 90·102+127 168 Roble-*2152*
A.B., Stanford, 1930
Grant, Bruce Burnham Mt. Shasta LD 40–7 325 Encina-*2103*
[4]Grant, Daniel Garfield, Jr. Los Angeles LD‡ 228 Union
Grant, Henry Clark Winnipeg, Can. Econ. gr. 266 Park Blvd., P-p
B.S., Manitoba, 1922, A.M., 1926
Grant, Richard Angus Los Angeles Econ. 138+43 DeltaKappaEpsilon
Grant, Russell Vantile San Diego Pre-Cl. 90·96+19 327 Wvrly., P-p
A.B., Stanford, 1930
Grant, Sarah Allis San Diego Soc.S. 140+80 234 Roble-*2406*
[4]Gratiot, John Hempstead Monterey Pre-Med. 136+90 Stanford, M
[4]Gratz, Eleanor Victoria San Jose Educ. gr. 1136 Curtis, SJ-sj
A.B., Stanford, 1921
Gray, Howell McAlister, N.M. Econ. 89·31–19 499A Governor's
Gray, Nelson Upland LD 58+43 222 Encina-*2322*
Grebe, Wallace Edward Costa Mesa Chem. 90·46+19 211 Sequoia-*103*
Greeley, Molly Seattle, Wash. Psych. 91·48+31 322 Roble-*2373*
Green, David Ely Berkeley Min. gr. 329 Union-*2201*
A.B., Harvard, 1927; Engineer, Stanford, 1930
[4]Green, George Leroy Mayfield Min. gr. 455 Williams, M-m
A.B., Oklahoma, 1917
Green, Helen James East Orange, N.J. Psych. gr. 565 Salvatierra-*1782*
A.B., Columbia, 1924
Green, Marion Melvin Reno, Nevada Med. gr. 2321 Sacramento, SF-sf
A.B., Stanford, 1929
Green, Oscar Fredric Palo Alto Phil. gr. 555Waverley,P-Bx*322,p*
A.B., Rice Institute, 1916; A.M., Stanford, 1927
[1]Green, Paul Jones Inglewood Econ. 108·58–20 Beta Th. Pi-*1335*
[4]Greene, Amsel Julietta, Idaho Cl.Lit. gr. 217 Roble
A.B., Idaho, 1916
Greene, Earnest Sylvan Campbell Chem. gr. 23 Page, C-Box 122, c
A.B., San Jose State Teachers College, 1927; A.M., Stanford, 1930
Greene, Nelle Dorris Phoenix, Ariz. Engl. 138+64 Del. Del. Del.-*1325*
[12]Greene, Preston Sacramento Soc.S.90·62–23 Al. Kap. Lam.-*658*
Greene, William Sumner Pasadena Engl.-P.S.181+156 PhiSg.Kp.-*538*
A.B., Stanford, 1930
Greene, William Wallace Phoenix, Ariz. Med. gr. 2321 Sacramento, SF-sf
A.B., Stanford, 1929
Greenfield, Charles Edward, Jr. Ross Soc.S. 180+64 Delta Upsilon
A.B., Stanford, 1930
[4]Greenleaf, Charles R. San Jose Educ. gr. 498 S. 12th, SJ-sj
A.B., San Jose State Teachers College, 1927
[4]Greenleaf, Margaret Page San Jose Educ. gr. 498 S. 12th, SJ-sj
A.B., Mills, 1929
[4]Greenleaf, Mary Page San Jose Educ. gr. 498 S. 12th, SJ-sj
A.B., San Jose State Teachers College, 1925
[1]Greenlee,Warren Russell LasVegas,Nev. LD sp. 5–8 363 Melville, P-p

Gregg, Douglas Clark A.B., Stanford, 1930	Pasadena	Pol.S. 181+124	Alpha Delta Phi-*J*
Gregory, Frank Everett	Modesto	S.Engr. 90·38–8	241 Hwthrn,P-p
Grelle, James Henry	Portland, Ore.	Pre-Med.98+23	Phi Kappa Sigma
Greninger, Alden Buchannan A.B., Stanford, 1929	New York	Min. gr.	312 Sequoia-*860*
Grey, George Cunningham	Glendale	LD 87+83	Beta Theta Pi-*1335*
Griffin, Eleanor Anne A.B., Stanford, 1930	Fresno	Engl. 135·49+73	184 Roble-*2263*
Griffin, George Alonzo	Greybull, Wyo.	Geol. 90·45+29	Theta Chi-*1383*
[12]Grimm, Thomas Henry A.B., Stanford, 1929	Reno, Nevada	Law gr.	537 Encina-*2757*
[4]Grimmer, Charles Fred A.B., San Jose State Teachers College, 1927	Santa Clara	Educ. gr.	SC-R1, Box 26, sc
Griset, Roy Franklin	Santa Ana	Econ. 90·44+3	AlphaSig.Phi-*1357*
Gross, Merle Roscoe A.B., Stanford, 1930	Modesto	Hist. 90·91+87	405 Sequoia-*819*
Grosvenor, Edward R.	Wenatchee, Wash.	LD 41–9	116 Encina-*942*
[4]Grover, Craig Edwin	Los Angeles	LD	317 Union
Groves, Richard Eighme	Boise, Idaho	LD 43·46–2	236 Encina-*614*
[4]Grunsky, Robert Ross	Saratoga	LD‡	Saratoga-Box 246, s
Grupe, Carsten Alonzo A.B., College of the Pacific, 1929	Stockton	M.E. gr.	365 Guinda, P-p
Guard, Edmond Charles	Santa Ana	LD 88+102	558 Encina-*1677*
Guérard, Catherine R.	Stanford Univ.	LD 48+49	635 Gerona-*1663*
[1]Gundry, Francis Joseph	Bakersfield	LD 69–7	Sigma Nu-*1385*
Gunnerson, William Fulton	Elsinore	Law 22·138+33	242 Branner
[1]Gunsolus, Mate	Palo Alto	Engl. 169+262	455 Forest, P-p
[4]Gunther, Julia Josephine A.B., Park, 1913	Alger, Mont.	Educ. gr.	Roble
[4]Guthrie, Esther Lee A.B., Stanford, 1915, A.M., 1916	Woodland	Bot. gr.	634 Arguello
[22]deHaas, John Christiaan Engineer, Dordrecht Technische, 1925	Holland	E.E. gr.	536 Alvarado
[4]Haberfelde, Elma Pearl A.B., California, 1926	Bakersfield	Educ. gr.	550 Salvatierra
Hables, Alvin Adolph	King City	LD 89+31	Phi Kappa Psi
[5]Hables, Leslie Irvin	King City	LD 49+9	131 Middle, MP-*2668*
[34]Hackler, John M. Ph.B., Chicago, 1916, A.M., 1921	Tahlequah, Okla.	Educ. gr.	1247 Stanford, M-*1917*
Hackney, A. Wayne A.B., Stanford, 1930	Pasadena	Phys. 90·90+24	219 Sequoia-*2823*
[5]Hadenfeldt, Charles T.	Oakland	Econ. 133+1	Phi Delta Theta
Hadley, Clausin Dennis B.S., Oregon, 1928; M.B.A., Stanford, 1930	Santa Rosa	S.Bus. gr.	Mayfield-Box 693, m
Hadley, Russell Curtis	San Mateo	LD 88+40	132 Branner-*1257*
Haehl, Harry Lewis, Jr.	Palo Alto	LD 45+69	224 Encina-*2632*
Haehl, Veva Jane	Palo Alto	LD 43+32	320 Roble-*2632*
Hahn, Vera Theresa A.B., Stanford, 1930	Spearfish, S.D.	Fr. 135·45+42	107 Roble-*2594*
Haight, Henry Huntly	Stockton	LD 16·60+6	Sigma Chi-*628*
[4]Haight, Rex C. A.B., Iowa State Teachers College, 1916	Grass Range, Mont.	Econ. gr.	Stanford Univ.
[13]Halderman,Helen Harriet	San Francisco	Psych. 139+141	Pi Beta Phi-*1918*
[4]Hale, Mary E.	Salt Lake City, Utah	Engl. 93·	331 Roble-*2676*
Hale, Prentis Cobb, Jr.	San Francisco	LD 71–11	Alpha Delta Phi-*J*
Hale, Wyatt Walker P.S., Birmingham-Southern, 1923, A.M., 1926	Birmingham, Ala.	Educ. gr.	528 Alvarado-*1191*

[4]Hall, Alton L. A.B., Colgate, 1902	Stanford Univ.	S.Biol. gr.	306 Toyon
[1]Hall, Arthur Curtis A.B., Stanford, 1930	El Paso, Tex.	S.Engr. 120·61+1	432 Encina-*144*
[5]Hall, Carolyn Gurley	San Francisco	LD 78+33	Kappa Kappa Gamma
[34]Hall, Cecile Belknap A.B., Stanford, 1928	San Jose	Educ. gr.	347 S. Third, SJ-sj
[23]Hall, Elizabeth L. Ph.B., Syracuse, 1906; A.M., Rochester, 1929	Rochester, N.Y.	Educ. gr.	135 Wilson, P-p
Hall, James Kendall A.B., Oregon, 1926, A.M., 1926; Ph.D., Stanford, 1929	Albany, Ore.	Law gr.	514 Oberlin, M-*55*
Hall, John A.B., Stanford, 1925, M.B.A., 1930	Palo Alto	S.Bus. gr.	835 Homer, P-p
Hall, John James Ch.E., Rensselaer Polytechnic, 1920	Rochester, N.Y.	Educ. gr.	135 Wilson, P-p
Hall, Lawrence Belknap A.B., Stanford, 1930	San Jose	Soc.S. 197+84	Delta Chi-*1304*
[4]Hall, Lucy Alice A.B., Stanford, 1917, A.M., 1918	San Mateo	Span. gr. 202	N.Ellsworth,SM-sm
[4]Hall, Luella Jemima A.B., North Dakota, 1917, A.M., 1919	Salinas	Hist. gr.	330 Roble
[5]Hall, Marshall Spencer	San Jose	Hist.23·141+88	1694 Almda., SJ-sj
Hall, Nason Eustace A.B., Stanford, 1930	Long Beach	Econ. 190+89	620 Homer, P-p
[23]Halley, James W. A.B., Stanford, 1929	Rapid City, S.D.	Min. gr.	Union-*1624*
Halpern,Gilbert Mortimer	Honolulu,T.H.	Pre-Med. 135+51	PacificGrove-pg
Halsted, Eminel Potter A.B., Stanford, 1930	San Francisco	Hist. 181+37	Kappa Sigma-*1326*
Halvorson, Morgan A.B., Whittier, 1929	Huntington Park	Chem. gr.	216 Union-*823*
Haman, John Otto A.B., Stanford, 1929	San Francisco	Med. gr.	149 Jordan, SF-sf
Hamilton, Albert Edward	Bloomington	S.Engr. 46·130+69	113 Toyon-*1741*
Hamlyn, John J., Jr. A.B., Stanford, 1928, J.D., 1930	San Francisco	Law gr.	519 Encina-*817*
Hamman, Charles Leroy	Oakland	Econ. 139+194	237 Toyon-*677*
Hammond, Darvel T. B.S., Utah Agricultural, 1928; M.B.A., Stanford, 1930	Providence, Utah	S.Bus. gr.	171 Everett, P-p
Hammond, George Brown	Stockton	Econ. 141–7	Sigma Nu-*1385*
Hammons, Hal Valentine	Ventura	LD 91+45	Kappa Alpha
[4]Hampson, Mary Beck A.B., Pomona, 1917	Hanford	Germ. gr.	550 Salvatierra
[13]Hampton, Gerald Paul	San Francisco	LD 18·43+25	203 Encina
[4]Hanavan, Mitchell Grattan	Dunsmuir	LD	214 Union
Hancock, John, Jr.	Stockton	LD 45+3	308 Encina-*2275*
[5]Hancock, Joseph Rainey A.B., Stanford, 1927	San Jose	Law gr.	532 S. 9th, SJ-sj
Hand, Milton Norval	San Diego	Educ. 90·84+17	409 Sequoia-*2631*
Hanna, Henry Charles, Jr.	Los Angeles	Econ. 138+5	Zeta Psi-*B*
[2]Hanna, John Muir	Martinez	LD 9·32–27	225 Toyon-*2017*
Hanna, Richard Rea	Martinez	Pol.S.101+28	AlphaSig.Phi-*1357*
[4]Hannah, E. Verna A.B., College of the Pacific, 1927	Sacramento	Educ. gr.	101 Roble
[4]Hanner, John Flint A.B., Stanford, 1922	Fresno	Educ. gr.	540 Salvatierra
Hannibal, Lester Stuart A.B., Stanford, 1930	San Jose	Chem. 135·47+47	203 Union
[5]Hanscom, William Wallace	SanFrancisco	Chem. 107+27	324 Sequoia-*1877*

Hansen, Norman Groves — Palo Alto — S.Engr.90·51+48 — 151 Cowper, P-p
Hansen, William Webster — Fresno — Phys. gr. — 315 Union-*1272*
A.B., Stanford, 1929
Hanson, Clarence Morgan — Ceres — Law gr. — 189 Cowper, P-*1456*
A.B., Stanford, 1929
Hanson, Raymond Lester — San Francisco — LD 45+22 — 359 Encina-*801*
[4]Hapner, Leora M. — Bozeman, Mont. — Educ. gr. — Kingscote
A.B., Montana, 1926, A.M., 1928
Harber, Clarice Bell — Sacramento — Soc.S. 90·46+63 — 203 Roble-*1964*
Harcourt, John Terry — Mt. Vernon, N.Y. — Econ. 97·45+20 — 160 Palo Alto, P-p
Harcourt, Shirley — Palo Alto — LD 89+65 — 216 Roble-*1692*
[4]Harder, Theo — Bakersfield — Pol.S. gr. — 225 Toyon
A.B., Stanford, 1929
[4]Hardin, Achsah Alice — Pueblo, Colo. — Educ. gr. — 817 Cowper, P-p
A.B., Western State College of Colorado, 1923
Harding, William F. — Sacramento — Pre-Med. 90·45+27 — 138 Brnr-*1421*
[4]Hardman, Maud R. — Salt Lake City, Utah — Ed.-G.A. gr. — 530 Harvard, M-m
A.B., Utah, 1924
Hardy, Arthur Gustave — Oakland — Econ. 123+53 — Kappa Sigma-*1326*
Hardy, Donald — Cañon City, Colo. — LD 40+16 — 349 Encina-*1651*
[4]Hardy, Grahame Hetherington — Piedmont — LD‡ — 247 Toyon
[2][3]Hare, Donald George — Fresno — Phys. 90·31+13 — 208 Sequoia-*1455*
[3]Harkleroad, Dudley Henry — Fresno — Law gr. — 550 Kingsley, P-*2817*
A.B., Stanford, 1927, LL.B., 1930
Harlan, Lorraine J. — Palo Alto — Hist. 90·43+17 — 949 Emerson, P-p
Harlow, Paul K. — Thompson Falls, Mont. — Educ. 180+25 — 139 Toyon-*1280*
A.B., Stanford, 1930
Harmon, F. Carlyle — San Jose — Chem. gr. — 628 Webster, P-p
A.B., Stanford, 1927, Engineer, 1928, Ph.D., 1930
[4]Harold, Elbert Wilson — Pocatello, Idaho — LD‡ 40+17 — 227 Toyon
Harper, Howard Edward — Los Angeles — Pre-Med. gr. — 407 Waverley, P-p
A.B., Occidental, 1925
Harriman, Theodore Darling — Berkeley — Econ. 135·45+27 — 543 Forest, P-p
A.B., Stanford, 1930
Harriman, Thomas Russell — Pasadena — Law gr. — 1630 Middlefield, P-p
A.B., Stanford, 1928, J.D., 1930
[5]Harrington, Charles Henry — Pasadena — Chem. gr. — 615 University, P-p
A.B., Stanford, 1925, A.M., 1925
Harrington, John F. — San Luis Obispo — Econ. 117+1 — 127 Branner-*1855*
Harris, Everett Glenn — Fresno — Econ. 7·174+99 — Theta Chi-*1383*
A.B., Stanford, 1930
Harris, Ford, Jr. — Los Angeles — Phil. 180+64 — Chi Psi-*1648*
A.B., Stanford, 1930
Harris, Henry, Jr. — San Francisco — Econ. 18·162+53 — 21 Toyon-*1855*
A.B., Stanford, 1930
Harris, Lawrence W., Jr. — San Francisco — Econ. 107+54 — Chi-Psi-*1773*
[4]Harris, Leo Alvil — Fresno — Educ. gr. — 239 Toyon
A.B., Stanford, 1927
Harrison, Kenneth Grant — Marysville — S.Engr. 87·43+6 — 212 Kipling, P-p
Harrison, Marlow Bristow — San Francisco — LD 45+38 — 310 Encina-*2303*
Harrison, Reginald Hugh — Los Angeles — Hist. 9·172+14 — Phi Delta Theta
A.B., Stanford, 1930
[4]Harrison, Theta — Palo Alto — Educ. gr. — 718 Bryant, P-p
A.B., West Virginia, 1920; A.M., Columbia, 1924
Harrold, Orville Goodwin — Sacramento — Math. 90·44+81 — 308 Sequoia-*1961*
Harroun, Alvin Winfred — Malaga, N.M. — LD 45+20 — 225 Encina-*1873*
Hart, C. Allan — Portland, Ore. — Econ. 7·142+199 — 124 Toyon-*2192*
[5]Hart, George David — San Francisco — Econ. 118+5 — 213 Branner-*916*

[4]Hart, H. Herschel A.B., James Millikin, 1924	Long Beach	Hist. gr.	616 Webster, P-p
Hart, James David	San Francisco	LD 83+34	669 Mirada-*2723*
[12]Hart, Leonard Orlando	Hollister	S.Engr. 90·16–11	353 Lytton, P-p
Hart, Russell Blackwell	Billings, Mont.	Hist. 134+230	Phi Gamma Delta
[4]Harter, Vesta Vera A.B., San Jose State Teachers College, 1927	Woodland	Educ. gr.	Roble
Hartley, Kenneth Ross	Los Angeles	LD 41+4	205 Encina-*1170*
Hartman, Milton Morris A.B., Stanford, 1929	San Francisco	Med. gr.	416 Encina-*2128*
[23]Hartman, Rodney Benton A.B., Southern California, 1926	Los Angeles	Med. gr.	2321 Sacramento, SF-sf
[4]Hartranft, S. Glenn A.B., Stanford, 1929	Fullerton	Educ. gr.	583 Lagunita-*1062*
Hartsough, C. William A.B., Stanford, 1930	San Diego	Psych. 7·182+103	301 Toyon-*586*
Hartwell, Brace Frederick	Beaumont	LD 23–21	124 Toyon-*702*
Hartwell, Sheldon Pearne A.B., Stanford, 1928	Los Angeles	Law gr.	Kappa Alpha
Hartzell, Homer Vincent A.B., Stanford, 1930	Portland, Ore.	Pol.S. 183+198	314 Toyon
Harvey, Fred Charles	Spokane, Wash.	Pre-Med. 137+42	Al. Sg. Phi-*1357*
Harvey, John Albert, Jr. A.B., Stanford, 1930	Santa Ana	Econ. 46·134+27	252 Toyon-*30*
Harvey, Lashley Grey A.B., William Jewell, 1925; A.M., Stanford, 1930	Palo Alto	Pol.S. gr.	821 Webster, P-*2426*
[4]Harwood, Aubrey Hughes B.S., Virginia, 1918	Lynchburg, Va.	Law gr.	836 Forest, P-p
Harwood, Catherine Aurelia	Pasadena	LD 48·45+50	101 Roble-*1923*
[4]Harwood, Edwin Temple	Pasadena	LD	318 Union
[5]Haskell, Jean Ryan	Artesia	Educ. 97·66+8	Delta Chi-*1304*
Hatakeyama, Jason S.	Saratoga	S.Engr.‡32–19	Saratoga-Bx 182, s
Hatch, Ernest Edward	Berkeley	LD 96+3	252 Toyon-*665*
[34]Hatch, Francis Nelson	Santa Rosa	Engl. 90·73+94	301 Branner-*733*
[4]Hathaway, William Sherman	Los Angeles	LD	228 Union
Hattrup, Richard A.	Fresno	LD 48+50	303 Encina
[4]Haulot, Leona Mary A.B., Arizona, 1923	Tempe, Ariz.	Educ. gr.	367 Roble
[4]Hawes, Lillian Josephine	Riverside	Soc.S. 135·14–4	203 Roble
[1]Hawes, Truman Post A.B., Stanford, 1930	La Mesa	Chem. 135·56+4	327 Union-*1232*
Hawkins, Adrienne Ann	Los Angeles	LD 45+11	250 Roble-*1662*
[4]Hawkins, Dorothea Cavitt	Berkeley	Econ. 98·108+47	234 Roble-*1367*
[12]Hawkins, Elizabeth Ziemer	Reno, Nev.	LD 64+60	Pi Beta Phi-*1918*
Hawkins, Frederick Henry	Pasadena	Econ. 134+184	Phi Delta Theta
Hawkins, Helen Idelle	Hickman	Span. 150+93	Sigma Kappa-*1327*
[4]Hawkins, Wayne Lee A.B., Stanford, 1925	Antioch	Educ. gr.	440 Palo Alto, MV-mv
Hawkins, Willis F.	Minneapolis, Minn.	Econ. 90·50+62	500 Encina-*721*
[5]Hawley, Abraham Lincoln A.B., Stanford, 1930	El Paso, Tex.	Geol. gr.	Sigma Chi-*628*
[2]Hawley, Ralph Brunson	Greenview, Ill.	LD 4–12	408 Encina-*990*
Hawley, Robert Clinton	Santa Paula	Span. 31·117+26	Sig.Al.Eps.-*1305*
[23]Hawley, Stuart Meek	Piedmont	LD 28+7	444 Encina
Hay, Francis George	Bakersfield	Econ. 106+83	Delta Chi-*1304*
[5]Hayden, Sheldon Miller A.B., Stanford, 1930	Azusa	Educ. gr.	206 Sequoia-*504*

[12]Haydock, J. Wesley — San Carlos — Econ. 105+52 San Carlos-Bx612,sc
Hayes, Cecil Branner — Springer, N.M. — Educ. gr. 686 Columbia, M-*1904*
A.B., McPherson, 1926; A.M., Stanford, 1930
[12]Hayes, Sidney Burrel — Bakersfield — Zoöl. 79·102+14 Phyl. Bldg.-*2178*
Hayhurst, L. Nelson — Fresno — Law gr. 564 University, P-*94*
A.B., Stanford, 1929
[5]Hayman, Richard E. — San Francisco — Econ. 105+62 124 Toyon
[4]Hays, John — Palo Alto — LD 635 Cowper, P-p
Hays, Marcia — San Mateo — Med. gr. 3845 California, SF-sf
A.B., Mills, 1925
[4]Hayward,Dorothy Genevieve — LosAngeles — Educ. gr. 321 Roble
B.S., Southern California, 1926
[4]Hayward, Ida R. — Watsonville — S. Biol. gr. Pacific Grove-pg
A.B., Stanford, 1911
Hazeltine, Herbert Samuel — Los Angeles — Econ. 131+8 Sigma Nu-*1385*
Hazlett, James Charles — Palo Alto — S. Engr. 100·25–9 1327 Byron, P-p
Head, Richard Leland — San Mateo — LD 42+36 447 Encina-*1356*
[13]Healey, Edward Francis — San Francisco — Zoöl. 104·84+19 Kappa Alpha
A.B., Stanford, 1930
[5]Hearne, Allen — Sierra Madre — Math. 58·60+0 305 Lytton, P-p
[5]Heaslet, Max Alfred — Miami, Okla. — Math. gr. 3 Union-*145*
A.B., Oklahoma, 1927, A.M., 1929
[12]Heath, Harrison F. — Dryad, Wash. — Educ. gr. 260 S. 15th, SJ-sj
B.S., Washington, 1916, A.M., 1921
Heche, Gordon F. — Alameda — LD 78+31 104 Branner
Hedge, Hamilton Russell — San Francisco — LD 50–1 321 Encina-*2009*
[5]Heffelfinger,Raymond Wylie — Los Angeles — Pol.S. 142+12 406 Sequoia-*1861*
Hegy, Louis — San Jose — S.Engr. 90·102+60 448 S. 8th,SJ-sj
A.B., Stanford, 1930
Heicher,WinchesterHallock — SanAnselmo — Hist. 92·88+49 214 Toyon-*2306*
A.B., Stanford, 1930
[4]Heiges, Cyrus Kenneth — Lompoc — LD 124 Toyon
Heiges, Laurence E., Jr. — Lompoc — Med. gr. 2180 Washington, SF-sf
A.B., Stanford, 1929
[4]Heiliger, Edward Martin — Rockford, Ill. — Econ. 95. 521 Lasuen
Heinecke, Walter — Santa Ana — Geol. 135+20 122 Toyon-*2668*
[12]Heineman, Walter Henry — Anaheim — Econ. 82·98+55 331 Encina-*2035*
A.B., Stanford, 1930
Heinke, Orrin Everett — Pittsburg — S.Bus. gr. 212 Union
A.B., Fresno State Teachers College, 1929
[12]Heiser, Pete Eugene — Los Angeles — Econ. 96–3 Delta Upsilon
*Held, William Poage — Ukiah — Pol.S. 50·113+74 304 Branner-*973*
[1]Heller, George Sydney — Stanford Univ. — Pre-Med. 119+5 762 Dolores
Hellman, Herman Wallace — Los Angeles — LD 47·43+40 231 Encina-*1774*
Helmke, Guy Martin — Fort Seward — Ed.-G.A. 178+75 Theta Xi-*1383*
[1]Helvenston, Ruth Lansburgh — Palo Alto — Cl.Lit. gr. 226 Madroño, P-*2182*
A.B., Stanford, 1929
Hemingway, FranklinW. — KansasCity,Mo. — S.Bus. gr. 552 Everett, P-p
B.S., Princeton, 1926
[2]Hendee, Esther Crissey — Stockton, N.Y. — S.Biol. gr. 200 Kingsley, P-p
A.B., Oberlin, 1925
Henderson, Beatrice M. — De Beque, Colo. — Soc.S. 31·95+32 206 Roble-*2227*
Henderson,Charles Evan — SaltLakeCity,U. — Law gr. 332 Waverley, P-p
A.B., Utah, 1929
Henderson, Emmett Edward — Campbell — Bact. 90·90+52 105 Sequoia-*805*
A.B., Stanford, 1930
Henderson, Helen Stevenson — Los Angeles — Econ. 135·51+38 Pi Beta Phi-*1918*
A.B., Stanford, 1930

Henderson, Lester Dale A.B., Tarkio, 1911; A.M., Stanford, 1930	Juneau, Alaska	Educ. gr.	660 Kingsley, P-p
Henderson, Richard William	Burlingame	LD 46+35	1420 Montero, B-b
[5]Hendricks, Robert Arthur	Mesa, Ariz.	Hist. 121·54+45	223 Union-*1224*
Henry, Florence May A.B., Stanford, 1930	Riverside	Engl. 90·90+66	276 Roble-*2725*
[234]Henry, James Gordon	Montclair, N.J.	Pol.S. 101+0	Delta Tau Delta-*1363*
Henry, Robert Archie A.B., Stanford, 1930	Stockton	S.Biol. 90·90+38	Phi Kappa Sigma
[1]Henry, Thomas Browne	Los Angeles	LD 75+56	349 Hamilton, P-p
[23]Henry, Wilbur Vincent	Los Altos	LD 26+17	LA-Rt. 1, Box 381, la
Heppner, Myer John B.S., California, 1921, M.S., 1922	Palo Alto	Med. gr.	520 Cowper, P-p
Herbert, Alden Libey	San Luis Obispo	LD 46+6	246 Encina-*1785*
Herbert, Arthur Sedgwick A.B., Stanford, 1930	Altadena	Econ. 180+0	Delta Kappa Epsilon
Herbert, Harlan Bates	Oakland	LD 50+41	*226* Encina
[2]Hereford, Jack H. A.B., Arizona, 1928	Tucson, Ariz.	Law gr.	203 Bryant, P-p
Hermann, Victor A.B., Stanford, 1930	San Jose	Econ. 90·90+67	553 Encina-*664*
[12]Herndon, John Bostrom	Gonzales	Pre-Med. 100+32	130Branner-*2058*
[12]Herreman, Harold Milton	Palo Alto	LD 31–4	340 Palo Alto, P-p
Herrington, LovicPierce A.B., Stanford, 1927, A.M., 1929, Ph.D., 1930	Waynesboro,Ga.	Psych. gr.	Sigma Nu-*1721*
Herz, Ludwig Ernest A.B., Stanford, 1926, A.M., 1927	Mayfield	Zoöl. gr.	315 Stanford, M-m
[4]Herzer,Harriett Catherine	San Francisco	LD 9–3	*762* Dolores
[5]Hess, Harlan Bernard	Morrill, Neb.	S.Biol. 45·78+36	16Perry,MP-*1498*
[234]Hesselmeyer, Anna D.	Palo Alto	Econ. 90·29+35	*236* Byron, P-p
Hesselmeyer, Harry Leonard	Palo Alto	LD 96+167	*236* Byron, P-p
[24]Hester, Willis Elston B.S., Colorado College, 1905	Mountain View	Educ. gr.	542 Church, MV-mv
Hetzel, Victor Leo	El Centro	Econ. 97·42–14	463 Ruthven, P-p
Hewit, Elizabeth Elaine	Spokane, Wash.	LD 47+7	178 Roble-*2352*
[5]Hewlett, Louise Redington	San Francisco	Engl. 121+160	Delta Gamma-*1366*
Hewlett, Marion	San Francisco	LD 48+26	Roble-*2206*
[4]Heywood, George Glenn A.B., Peru State Teachers College, 1921;	Denver, Colo.	Educ. gr. A.M., Columbia, 1929	
Hibbard, Harold Oliver	San Francisco	S.Biol. 98·91+38	Al.Sig.Phi-*1357*
Hickerson, George X., Jr.	Los Angeles	LD 96+16	201 Branner-*2665*
Hickethier, Edgar John	Vallejo	LD 51·43–14	445 Encina-*2605*
Hickman, Hallien D.	Centerville, Iowa	LD 91+104	Delta Delta Delta-*1325*
Hickman, John, Jr.	Santa Monica	LD 66–7	342 High, P
Hicks, Avery Morley A.B., California, 1924	Berkeley	Med. gr.	2220 Milvia, B-b
[5]Hiestand, John Hallam	S.Pasadena	Pol.S. 90·72–11	Del.Tau Del.-*1363*
Higgins, Kenneth C.	Tulsa, Okla.	LD 55+13	43 Encina-*2281*
Higgins, Lawrence Nelson	Long Beach	S.Engr. 9·133+33	129 Branner-*737*
Hightower, Ann McClaran	Oakland	LD 95+18	Chi Omega
[5]Hilby, Sylvester Lyman A.B., Washington, 1929	Sharon, Wash.	Educ. gr.	Menlo School, MP-mp
[4]Hill, Alexandra Leslie	Konocti Bay	Econ. 180–3	Sigma Kappa-*1327*
[4]Hill, Arthur Lionel	Milpitas	LD 84·13+5	Milpitas-m
[5]Hill, Elinor Walker A.B., Stanford, 1922	Los Angeles	Zoöl. gr.	Pacific Grove-pg

Hill, Harry Hartley A.B., Stanford, 1930	Corona	Econ. 90·90+52 428 Encina-*1219*
Hill, Henry Eric A.B., Stanford, 1929, Engineer, 1930	Redding	E.E. gr. 213 Sequoia-*2393*
[4]Hill, Ned Wallace A.B., Juniata, 1925	Phoenix, Ariz.	Educ. gr. 557 Lasuen-*1335*
Hill, Ruth Elizabeth	Salinas	Fr. 161+69 Kingscote
[4]Hill, Sallie Haddock A.B., Washington, 1911	San Francisco	Educ. gr. Kingscote
Hillman, Harry Hayes	Los Angeles	LD 109+28 Zeta Psi-*B*
Hilmer, Frederick Birch A.B., Stanford, 1930	Palo Alto	Chem. 15·177+211 350Embrc., P-p
Hilmer, George Haskell	San Francisco	Hist. 105+26 Chi Psi-*1648*
[12]Hinchliffe, John William, Jr.	S.Pasadena	LD 71–2 Phi Gamma Delta
Hinckle, William A.B., Stanford, 1928, J.D., 1930	San Diego	Law gr. Phi Kappa Sigma
[4]Hind, Alice Gertrude	Redwood City	Educ. ‡ 58+16 148 Harrison,RC-rc
Hindry, Horace Waldo A.B., Stanford, 1930	Denver, Colo.	S. Engr. 180+25 219 Toyon-*2488*
Hines, Fred George	San Rafael	LD 72+116 628 Gilman, P-p
Hines, Frederick Edwards A.B., Stanford, 1928, J.D., 1930	San Jose	Law gr. 421 Encina-*896*
[12]Hippard, Harriett Amanda A.B., Western Reserve, 1924; A.M., Stanford, 1925	Cleveland, O.	Bact. gr. 332 Forest, P-p
Hirayama, Masaichi	Kobe, Japan	LD67·36+13 472Shrdn,M-Bx771,m
[3]Hirsch, James Marvin	Los Angeles	Soc.S.75·32+8 87Crescent, P-*1411*
Hirschman, John Adolph	San Francisco	LD 74+4 126 Encina
Hise, Don William	Des Moines, Iowa	Pol.S. 137+93 Sg.Al.Epsilon-*1305*
Hiura, George Yoshimi	Sebastopol	Pre-Med. 90·41+26 Jap. Club-*598*
[5]Ho, Beyne	Swatow, China	Econ. 90·52+28 Chinese Club-*2026*
[12]Ho, Tsu I A.B., Stanford, 1929	Szechuen, China	Econ. gr. Chinese Club-*2462*
[5]Ho, Yichun A.B., Stanford, 1930	Hunan, China	Pol.S. gr. 559 Cowper, P-*2547*
[4]Hoagland, Paul Ingalls, Jr.	Phoenix, Ariz.	LD ‡ 121 Toyon-*1190*
Hobart, Lewis Deming A.B., Stanford, 1930	San Francisco	Econ. 49·131+59 Chi Psi-*1648*
[12]Hobbie, Henry William A.B., Stanford, 1930	Redwood City	Chem. gr. 311 Sequoia-*2791*
Hockman, Albert Benjamin	Whittier	S.Engr.90·45+71 PA-Box13,Rt.1,p
Hodge, Edgar Ashmun	Sao Paulo, Brazil	LD 38–15 206 Encina-*1967*
[1]Hodges, Jack Ormond A.B., Stanford, 1930	Tulare	Soc.S.-Jn. 180+59 Chstnut,M-*2668*
[1]Hodgson, John Robert	Maricopa	Bot. 140+21 541 Homer, P
Hoedel, Robert Blacow	Oakland	Econ. 137+100 122 Toyon-*1364*
[4]Hoessel, Sheldon Warrington A.B., San Jose State Teachers College, 1928	Stockton	Educ. gr. 365 E. St. James, SJ-sj
Hoffman, Charles Hague	Oakland	LD 44+6 315 Encina-*2237*
[4]Hoffman, Leo Calvin B.S., Iowa Agricultural, 1925	Leon, Iowa	Educ. gr. Barker Hotel, P-p
Hoffmann, Richard Albert	Oakland	LD 49+17 326 Encina-*809*
[4]Hogan, Marion Loretto A.B., California, 1927	Berkeley	Hist. gr. Roble
[1]Hogevoll, Wilbur Swanson	Menlo Park	LD 13–3 MP-Box 218, mp
[3]Hogue, Denney Robert	Payette, Idaho	Econ. 132·14+23 228 Fulton, P-p
Hohberger, Roy Anton	Redwood City	Educ.94·23+11 330Edgewd,RC-rc
[5]Holbrook, Raymond Brimhall B.S., Brigham Young, 1927	Provo, U.	Law gr. 233 Addison, P-p

Holcomb, Harvey Douglas San Francisco LD 46+31 MP-R. 2, Box 41, mp
Holden, Robert Grey San Francisco LD 43–10 345 Encina
[4]Holley, Marion Visalia Soc.S. 136+210 261 Roble
Hollingsworth, J. Everett WestBranch,Ia. Educ. gr. 1560 Cowper, P-p
B.S., Penn, 1922
Hollingsworth, John Binford Hemet Med. gr. 2180 Washington, SF-sf
A.B., Stanford, 1929
Holman, Cranston Wm. San Francisco Med. gr. 112 Walnut, SF-sf
A.B., Stanford, 1927
Holman, Donald H. Portland, Ore. Econ. 87·47+21 Chi Psi-*1648*
[2]Holmes, Harlan Banta Palo Alto Zoöl. gr. 1314 Parkinson, P
A.B., Stanford, 1922
[3]Holmes, James Francis Rio Linda Econ. 90·15+0 212 Sequoia-*1331*
Holmes, Otis Halbert Forest Grove, Ore. Econ. gr. 614 Alvarado
B.S., Whitman, 1923; A.M., Columbia, 1927
Holmes, Rawson Stannage Berkeley LD 46+38 32 Encina-*2367*
Holt, Achilles Madison El Paso, Tex. Phil. 125+48 128 Kingsley, P-*1523*
Holt, Parker Morton Piedmont LD 97+33 Delta Tau Delta-*1363*
[1]Holt, Pliny Guernsey Stockton LD 27–2 130 Branner-*1293*
Holwerda, Jacob Jack Muskegon, Mich. LD 46+0 42 Encina
Hooker, Grover C. Jackson, Miss. Educ. gr. 257 Hawthorne, P-p
A.B., Colorado, 1924, A.M., 1924
Hoover, John Page San Mateo Hist. 90·48+49 100 Pninsla,SM-sm
Hopkins, Isabelle Topeka, Kans. Soc.S. 90·50+6 1215 Emerson, P-p
[5]Hopkins, John James San Francisco S.Biol.103·63+27 1086Chrch,SF-sf
[4]Hopkins, Robert James San Mateo Educ. gr. 11 E. Poplar, SM-sm
A.B., California, 1920, A.M., 1922
[1]Hopkins, Warren Daniel Los Angeles Econ. 180+0 Kappa Sigma-*1326*
A.B., Stanford, 1930
Hopkins, William Stephen Palo Alto Econ. gr. 549 Stanford, M-*55*
B.S., Oregon, 1925, M.S., 1928
[12]Horine, William Henry Henryetta, Okla. Law gr. Alpha Sigma Phi-*1357*
A.B., Stanford, 1927, J.D., 1930
Horton, Eugene Austin San Francisco LD 46+46 121 Encina-*2057*
[4]Horton, Mark M. Venice Engl. gr. 216 Union-*1401*
A.B., Columbia, 1912
Hosmer, Elizabeth Page Tacoma, Wash. LD 47+65 349 Roble-*2394*
Hossom, Lynn Overton Long Beach Law gr. Alpha Tau Omega-*1384*
A.B., Stanford, 1928, J.D., 1930
[1]Hotchkiss, Harold Kidwell Altadena Pol.S. gr. Alpha Sigma Phi-*1357*
A.B., Stanford, 1927
[4]Houstman, Chauncey Ray Long Beach Engl.-P.Sp. gr. 660 Waverley, P-p
A.B., Iowa State Teachers College, 1912
Houston-Shaw, Frederic Menlo Park S.Bus. gr. 27Hmsa,MP-Bx441,mp
B.S., Kentucky, 1921
Hovey, H. Birnet Salt Lake City, Utah Psych. gr. 240 Embarcadero, P-p
B.S., Utah, 1925; M.S., Oregon, 1927
How, John Harry San Francisco Econ. 183+84 236 Toyon-*1407*
A.B., Stanford, 1930
How, John Hock Canton, China E.E. gr. Chinese Club-*583*
A.B., Stanford, 1930
[4]Howard, Alice T. Klamath Falls, Ore. Educ. gr. 593 Salvatierra
A.B., Oregon, 1921, A.M., 1923
[4]Howard, Charles Wilber Mayfield Educ. gr. 1528 College, M-m
B.S., Kansas State Agricultural, 1922, M.S., 1929
[4]Howard, Charlotte Elizabeth Sacramento LD ‡ 212 Roble
[24]Howard, LBen Palo Alto Pol.S.77·51+12 319Middlefield,P-p
Howard, Lot Duncan San Jose Anat. gr. 351 Homer, P-p
A.B., Stanford, 1929

Howard, William Thomas	Burlingame	Econ. 90·40–2	1357 Drake, B-b
Howe, Charles Roland, Jr.	Atascadero	LD 102+17	Theta Chi-*1383*
Howe, J. Wendell	Oakland	Bot. gr.	204 Union
B.S., Oregon State Agricultural, 1924; A.M., Stanford, 1930			
Howe, Robert H.	Hollywood	Econ. 5·142+112	Theta Chi-*1383*
Howe, William Gould	Hollywood	LD 47+17	328 Encina-*2531*
Howell, Alfred Charles, Jr.	Los Angeles	S.Engr. 129+29	113 Toyon-*1502*
Howell, James Francis	El Segundo	S.Engr. 140+124	Del.TauDel.-*1363*
Howell, Leslie Lee	El Segundo	LD 89+128	Delta Tau Delta-*1363*
[12]Howlett, Frank, Jr.	San Francisco	Chem. 198+205	Al. Kap. Lam.-*658*
A.B., Stanford, 1930			
[12]Hoxie, Henry Luke	Los Angeles	S.Engr. 180+40	Del. TauDel.-*1363*
A.B., Stanford, 1930			
[1]Hoxsie, John W.	Huntington Beach	LD 58·60–34	Kappa Sigma-*1326*
[4]Hoy, Elvin Albert	Portland, Ore.	Math. gr.	557 Lasuen
B.S., Oregon Agricultural, 1925			
Hromadka, John Ben	Santa Monica	Pre-Med. 166+14	Pacific Grove-pg
[5]Hsüeh, Hung Chih	Mukden, China	Educ. gr.	942 Ramona, P-*968*
[1]Huang, Ju Chin	Peking, China	Educ. gr.	Chinese Club-*2785*
Hubbard, Royal Eugene	Fairfield, Idaho	Pol.S. 135+92	214 Toyon-*64*
[5]Hubbard, Wilbur Virgil	San Jose	Educ. 135·52+42	523 Encina-*2665*
[12]Hubler, Fred Faber	El Segundo	Econ. 183+23	Kappa Sigma-*1326*
A.B., Stanford, 1930			
Hubler, Gaylord Neal	Porterville	Law gr.	637 Alvarado-*1236*
A.B., Stanford, 1929			
[4]Hudson, Blanche Leona	Desloge, Mo.	Cl.Lit. gr.	1027 Bryant-P-p
A.B., B.S., Missouri, 1924			
Hudson, Bradford Benedict	Pacific Grove	Chem. 199+111	212 Branner-*1468*
A.B., Stanford, 1930			
Hudson, Claire Benedict	Pacific Grove	LD 45+27	323 Roble-*1842*
Hudson, Louise Estelle	Watsonville	LD 44+45	324 Roble-*2434*
Huebner, Robert Sanford	San Francisco	LD 44+38	MenloPk-RFD,209a,mp
Hughes, Clarice Hohfeld	Oakland	LD 6·74–18	Delta Del. Delta-*1325*
[4]Hughes, Dorothy Todd	Bedford, Ind.	Educ. gr.	211 Roble
B.S., New York, 1928			
Hughes, Mina Brunton	Burlingame	LD 22·79+109	149 Roble-*1145*
Hughes, Olin Rice	Santa Clara	Hist.60·120+36	1565Frnkln,SC-sc
A.B., Stanford, 1930			
[13]Hulen, Ray J.	Long Beach	LD 114+34	Delta Kappa Epsilon
Hultz, Harold Melvin	Notus, Idaho	LD 25–22	19 Encina-*503*
[5]Hume, Jackson Walter	San Francisco	LD 45·67+13	443 Kipling, P-p
Hume, Robert Arthur	Brookings, S.D.	Law gr.	420 Encina-*1468*
A.B., Stanford, 1929			
[12]Humphrey, Kenneth H.	Ft. Worth, Tex.	Econ. 88·17–19	538 Alvarado-*951*
Humphreys, Cecil Walter	Stockton	Chem. gr.	311 Union-*2401*
A.B., College of the Pacific, 1927; Engineer, Stanford, 1928			
[4]Humphreys, John Wills	Madera	LD	115 Toyon
Humphreys, Philip Elfers	Madera	Soc.S.-Jn.103+29	The.Dl.Chi-*1828*
[4]Humphreys, Thomas R.	Medford, Ore.	Educ. gr.	325 Union
A.B., Oregon, 1925, A.M., 1929			
Hundley, Roy Albert	San Francisco	LD 50+20	327 Encina
Huneke, John Sherwood	Spokane, Wash.	LD 89+70	133 Branner-*1484*
[124]Hung, Ko-Wong	Swatow, China	Educ. gr.	Chinese Club-*1252*
A.B., Lingnan, 1927			
Hungate, Robert Edward	Cheney, Wash.	S.Biol. gr.	Pacific Grove-pg
A.B., Stanford, 1929			
Hunken, John William	San Francisco	Pre-Med. 123+38	Kappa Sig.-*1326*

[4]Hunkins, Ralph V. Lead, S.D. Educ. gr. 539 Columbia, M
A.B., Nebraska, 1914; A.M., Chicago, 1921
[12]Hunnicutt, Arthur Jesse Whittier Pre-Med. gr. Pacific Grove-pg
A.B., Whittier, 1928
[4]Hunsaker, Harold E. Salida Econ. 90- 141 Toyon
Hunt, Albert Barker Santa Barbara LD 89+62 Beta Theta Pi-*1335*
Hunt, Byron Lewis Los Gatos LD sp. 53+21 83 Fairview, LG-lg
[5]Hunt, Frederick Tunstall Pasadena Pre-Med. 134+105 Pac. Grove-pg
Hunt, John MacLain Glendive, Mont. Law gr. 1212 Fulton, P-p
A.B., Stanford, 1929
Hunt, Oswald Augustus Santa Barbara LD 45+47 217 Encina-*1632*
Hunt, Robert Walter Santa Barbara Med. gr. 2321 Sacramento, SF-sf
A.B., Stanford, 1926
Hunt, Warner Duane Beverly Hills Econ. gr. 552 Everett, P-*1495*
A.B., Occidental, 1929
Hunt, William M. San Jose LD 36–7 43 Encina-*2501*
[12a]Hunter, Francis Bernard San Diego LD 10·73–3 560 Salvatierra-*2816*
[5]Hunter, George Waco, Texas Educ. gr. 582 Alvarado
A.B., Baylor, 1927
Hunter, Harold Wayne Eureka Math. 90·45+31 315 Sequoia
[23]Hunter, Robert Charles Portland, Ore. LD 28+28 15 Encina-*615*
[23]Hunter, Thomas Benton, III San Francisco S.Engr. ‡ 24–10 Chi Psi-*1648*
[3]Hunter, Wayne E. San Jose Econ.-Acct. 127–1 107 Branner
[25]Hunting, William Fred Springfield, O. LD 32+18 235 Enc.-*1293*
Huntington, David Los Gatos LD 59+18 112 Encina-*1552*
[12]Huntington, Harriet Pasadena LD 48·73+72 Kappa Alpha Theta
Hupp, William Ward Berkeley LD 89+30 329 Hawthorne, P-p
[12]Hurd, Arthur Bentley Aurora Sta., Ohio Econ.60·54–29 555Wvly.,P-Bx322
[1]Hurlbut, John Bingham Los Angeles Law gr. 219 Ramona, P-p
A.B., California at Los Angeles, 1928; A.M., Stanford, 1929
[1]Hurlbut, Wilbur Bingham Omro, Wis. LD 13+4 307 Encina-*2186*
Hurren, David Glover Hyde Park, Utah S.Bus. gr. 353 Lytton, P-p
B.S., Utah Agricultural, 1927
Hurt, Arthur Curtis, Jr. Los Angeles Pol.S. 180+55 Alpha Sig. Phi-*1595*
A.B., Stanford, 1930
[23]Huston, Raymond Sylvester Berkeley LD 35+10 427 Encina
Hutcherson, Mervin L. San Francisco Econ. 193+112 232 Branner-*694*
A.B., Stanford, 1930
[12]Hutchinson, George G. Bradley Beach, N.J. LD 67+12 653 Cabrillo-*844*
Hyde, Ben Cooper Fairfield Geol. 177+22 736 Webster, P-p
Hyde, Cedric Alfred Visalia LD 49·37+22 106 Encina-*2825*
[4]Hyland, George Black Los Angeles LD 119 Toyon
Imai, Yuji Santa Barbara LD 45+64 Japanese Club-*598*
Incerti, Joseph Marion Fort Bragg S.Engr. 109·85–1 424 Encina
[23]Inch, Thomas Turner Los Angeles LD 97+7 Chi Psi-*1648*
Inge, Martha Sedalia, Mo. Soc.S.-Jn.90·48+31 374Roble-*2517*
Ingebretsen, James C. Salt Lake City, U. Law 112·73+89 446 P. A.,P-*2316*
A.B., Stanford, 1930
[5]*Ingraham, Alice Louise Yuma, Ariz. Hist. gr. Box 304, Yuma, Ariz.
A.B., Stanford, 1930
Ingram, William Truitt Palo Alto C.E. 199+91 825 Cowper, P-p
A.B., Stanford, 1930
[25]Ingrim, Virginia Claire Oakland LD 29+14 150 Roble
Ireland, Cornelia Staats Portland, Ore. Span. 106·74+110 378 Roble-*1212*
A.B., Stanford, 1930
[4]Ireland, Ruth Elizabeth Piedmont Ed.-G.A. gr. 309 Roble
A.B., California, 1927

Iriki, Henry Masanori	Oakland	Pre-Clin. 111-67-3	Jap. Club-*1213*
Iriki, Walter Keisuke A.B., Stanford, 1928	Oakland	Med. gr.	1641 Sutter, SF-sf
Irsfeld, James Balthazar	Hollywood	LD 43-17	117 Encina-*1814*
Irvine, George William	Mare Island	LD 46-15	202 Encina-*2122*
Irvine, Richard Fyfe	Los Angeles	LD 25-3	202 Encina-*2122*
Irving, Gordon Leith	Palo Alto	Econ. 135-36	459 Homer, P-*2169*
Irwin, Thomas George A.B., Stanford, 1930	Palo Alto	Econ.-Jn.190-133	1776Wvy,P-*1054*
[4]Isaac, Winona Estella A.B., California, 1920	Corning	Educ. gr.	1035 Parkinson, P-p
Isaacs, John Bailey	Los Angeles	S.Engr. 131-76	Theta Chi-*1383*
Isaacson, Charles Baine	Redlands	LD 46-6	223 Encina-*1822*
Isaly, Ruhland Delbert	Mansfield, Ohio	Soc.S. 85-2	Phi Gamma Delta
[4]Isensee, Arthur Fredrick B.S., Purdue, 1917	Escalon	Educ. gr.	334 Waverley, P-p
Ishigaki, Ernest Isokichi	Terminal	S.Engr. 90-49-11	Jap. Club-*598*
Ishikawa, Tokio	San Jose	Pre Med. 136-206	248Jcksn,SJ-sj
Isola, Frank A.B., Fresno State College, 1929	Livingston	S.Bus. gr.	548 Alvarado-*1302*
[12][24]Israel, Harry Frederick A.B., Stanford, 1927	Palo Alto	Psych. gr.	520 University, P-p
[12]Israel, Hugh Rock	Palo Alto	Zoöl. 173-79	813 Cowper, P-p
Ito, Tomo	Pasadena	Geol. 36-66+1	635 Bryant, P-*1412*
[5]Iversen, William Lincoln A.B., Washington State, 1923; A.M., Stanford, 1930	Pullman, Wash.	Educ. gr.	116 Donohoe, P-*974*
[1]Izzard, Carl Frederick A.B., Stanford, 1930	San Mateo	C.E. 196+243	218 Branner-*2812*
Jackson, Carl Raymond A.B., California, 1925	San Francisco	Med. gr.	2211 California, SF-sf
[24]Jackson, Earl Robert A.B., Lawrence, 1908	Galesburg, Ill.	Phys.Ed. gr.	740 Homer, P-p
Jackson, Elizabeth	Webster Groves, Mo.	LD 106+143	Alpha Phi-*1387*
[4]Jackson, J. W. A.B., Texas Technological, 1929, A.M., 1929	Lubbock,Texas	Pol.S. gr.	233 Union-*1047*
Jackson, Paul Joseph A.B., Washington, 1929	Seattle, Wash.	Engl. gr.	147 Emerson, P-p
[4]Jackson, Paul T. Ph.B., Linfield, 1921	Klamath Falls, Ore.	Educ. gr.	Stanford Univ.
Jackson, Rodney Norris	San Francisco	Econ. 137+27	Theta Chi-*1383*
[1]Jacobs, Alfred Edward A.B., Stanford, 1929	Santa Monica	Law gr.	103 Sequoia
[1]Jacobs, Edward Harold	Los Angeles	Econ. 135-65-9	444 Encina-*516*
Jacobs, Lewis Grant, Jr. A.B., Stanford, 1928	San Francisco	Med. gr.	2955 Buchanan, SF-sf
Jacobs, Melville Leonard	Paso Robles	Med. gr.	2321 Sacramento, SF-sf
Jacobs, Ralph Henry	Napa	S.Engr. 117-44+11	680Coll.,M-*1514*
[1]*Jacobson, David S. A.B., Stanford, 1930	Brawley	Hist. 180+164	215 Encina-*1664*
[4]Jaeger, Waldemar John A.B., Fresno State College, 1925	Porterville	Educ. gr.	468 Hamilton, P
Jago, Beatrice	Palo Alto	Hist. 146+51	2380 Waverley, P-p
Jago, John Bernard A.B., Stanford, 1930	Palo Alto	S.Let.202+181	2380 Waverley, P-p
Jahant, Louise	Acampo	LD 57-40+80	342 Roble-*2514*
Jakunin-Malushin, Nicholas A.B., Stanford, 1928	Russia	C.E. gr.	448 Encina-*1239*
Jamart, Gustave Emile J.	San Francisco	S.Engr. 5-147+96	214Sequoia-*2167*

[8]James, Albert Louis — Denair — S.Bus.gr. — 2421 Durant, Berkeley-b
A.B., Stanford, 1927
James, Allan Harris — Montrose — LD 96+78 — 220 Toyon-*1468*
James, Ben — Hollywood — S.Engr. 192+249 — 216 Toyon-*1468*
A.B., Stanford, 1930
James, Martha — San Francisco — Med. gr. — 3845 California, SF-sf
A.B., College of the Pacific, 1919
[12]James, Mary Louise — Oakland — LD 55+9 — Gamma Phi Beta-*1337*
James, Ralph Rutherford — San Luis Obispo — Econ. 123+11 — 218 Branner-*1855*
[23]Jameson, Eloise — Corona — Chem. gr. — 332 Forest, P-*1040*
A.B., Stanford, 1910, A.M., 1912, Ph.D., 1930
Jamison, Jean — Alameda — LD 90+8 — Kappa Kappa Gamma
Janda, Robert Lyon — Stanford Univ. — Law gr. — 309 Union-*1584*
A.B., Stanford, 1928
[4]Janes, Hattie E. — Fresno — Educ. gr. — 530 Webster, P-p
A.B., Fresno State College, 1927
[5]Janin, Louis Dunbar — Piedmont — Pol.S. 119+77 — Theta Chi-*1383*
Jankiewicz, Harry Anthony — Los Angeles — Med. gr. — 185 Bryant, P-p
A.B., California at Los Angeles, 1929
Jayne, Edith — San Francisco — Soc.S. 180+275 — Alpha Phi-*1387*
A.B., Stanford, 1930
[23]Jeffrey, Robert E., Jr. — Imola — LD 30+22 — 206 Encina-*1018*
[5]Jellinek, Emil O. — San Francisco — Econ. 23·156–1 — 205 Branner-*2196*
[4]Jenks, Edith Margaret — San Diego — LD ‡ — 251 Roble
[6]Jennings, Deborah — Salt Lake City, Utah — Chem. gr. — Madroño-*2149*
A.B., Mills, 1928
Jennings, John Paul — Portland, Ore. — Law gr. — Delta Chi-*1304*
A.B., Stanford, 1929
Jensen, Albert Abe — Susanville — Econ. 90·92+39 — 209 Sequoia-*2002*
A.B., Stanford, 1930
[4]Jensen, George Alvin — Parlier — LD ‡ — 635 Bryant, P-p
[4]Jensen, George Christian — Logan, Utah — Germ. gr. — 313 Toyon
A.B., Brigham Young, 1903; A.M., Harvard, 1913
Jensen, Walter Neil — Sunnyvale — Pre-Med. 93·48+6 — Borregas, S-s
Jernegan, John Durnford — Palo Alto — LD 44+56 — 225 Encina-*988*
Jessee, Theodore William — Santa Ana — Econ. 87·93+34 — 305 Sequoia-*949*
A.B., Stanford, 1930
Jessen, Jack M. — Claremont — Law gr. — 721 Columbia, M-*1143*
A.B., Pomona, 1926; LL.B., Stanford, 1930
[4]Johns, Floyd Marion — Maui, T.H. — Engl. gr. — 453 Princeon, M-m
A.B., Kansas, 1909
Johns, Ned Burt — Huntington Park — LD 88+34 — Phi Kappa Psi
Johnson, Arthur Beers — Palo Alto — Chem. gr. — 433 Kingsley, P-p
A.B., Stanford, 1927, A.M., 1928
Johnson, C. Merton — Whittier — S.Bus. gr. — 235 Union-*1273*
A.B., Whittier, 1928; M.B.A., Stanford, 1930
Johnson, Daniel Harrison — Hollywood — LD 37–9 — 39 Encina-*1631*
Johnson, Dorothy May — Long Beach — Hist. 90·43+39 — 104 Roble-*1815*
Johnson, Edgar Greenwood — Cupertino — LD 43+37 — 245 Encina-*937*
Johnson, Floyd Lemuel — Stanford Univ. — Geol. 198+92 — 245 Branner-*1864*
A.B., Stanford, 1930
Johnson, Frances Jean — Palo Alto — LD 45+34 — 252 Roble
Johnson, Francis Comer — Menlo Park — S.Engr. 144+53 — MP-Box 601, mp
Johnson, Frederick Albion — Hayward — Geol. 128+14 — 135 Toyon
[12]Johnson, Hilton Olaf — San Francisco — LD sp. 87+41 — 249 Branner-*2682*
Johnson, Joseph Dykes — Taft — Zoöl. 138+29 — 201 Toyon-*2425*
[13]Johnson, Joseph Warren — Los Angeles — LD 93–1 — Phi Kappa Psi

[4]Johnson, Laura Christine Pendleton, Ore. Educ. gr. 162 Roble
A.B., Oregon, 1927
Johnson, Leland Francis Los Angeles LD 68+22 Phi Kappa Psi
[1]Johnson, Lester Dechman San Jose Pol.S. gr. 260 S. 3rd, SJ-sj
A.B., San Jose State Teachers College, 1929
[4]Johnson, Maurice C. Litchfield, Ill. LD ‡ 1020 Ramona, P-p
[1]Johnson, Robert Courtney Santa Cruz Econ. 100+7 208 Sequoia-*1117*
Johnson, Robert Willus Tacoma, Wash. Econ.-Ac. 91·96+67 431 Enc.-*2059*
A.B., Stanford, 1930
Johnson, Thorwald San Francisco Phyl. 89·49+19 1835 8th Av., SF-sf
[4]Johnson, Vera Beatrice San Francisco LD ‡ 357 Roble
Johnson, W. Allison Hemingford, Neb. Educ. gr. 1831 Waverley, P-p
A.B., Nebraska State Normal, 1927; A.M., Stanford, 1930
Johnson, Walter Albert Piedmont Med. gr. 2180 Washington, SF-sf
A.B., Stanford, 1928
Johnson, William Edward San Francisco Law gr. Phi Gamma Delta
A.B., Stanford, 1929
[4]Johnston, Dorothy Cameron Saratoga LD ‡ Saratoga Inn, S-s
Johnston, Florence Mary Stanford Univ. LD 38–3 225 Roble-*1132*
[12]Johnston, Francis Newlands Wash.,D.C. Geol. gr. 207 Union-*553*
A.B., Harvard, 1927; A.M., Stanford, 1930
Johnston, Fred Dean Santa Ana Hist. 138+70 137 Toyon
Johnston, Harry Mumford, Jr. Fresno Econ. 89·46–16 224 Toyon-*2796*
[4]Johnston, Russell R. Taft Educ. gr. 332 Union-*1119*
A.B., Stanford, 1922
Johnston, Willard Spencer San Mateo Soc.S. 111+63 312 Roblar, SM-sm
Johnston, William Barksdale Fresno Law gr. 508 Encina-*1468*
A.B., Stanford, 1928
[34]Johnstone, Anne Hartwell Beaumont Pol.S. gr. 147 Emerson, P-*849*
A.B., Stanford, 1928
[2]Johnstone, William C., Jr. Denver, Colo. Pol.S. gr. 11 Union-*849*
A.B., Denver, 1924, A.M., 1927
[234]Johnstone, William Des Portes Wash.D.C. Soc.S.97·36+36 129 Emerson,*P-144*
[5]Jonasson, Jonas Adalsteinn Bow, Wash. Hist. gr. 327 Union-*1199*
A.B., Linfield, 1926
Jones, Edmund Hawley Portland, Ore. Hist. 5·192+172 323 Sequoia-*1468*
A.B., Stanford, 1930
Jones, Evan Winthrop Cincinnati, Ohio M.E. gr. 101 Middlefield, P-p
B.S., Denison, 1925
Jones, George Cambell, Jr. Palo Alto S.Engr. 45·95+1 Beta Theta Pi
Jones, Grenville C. Santa Maria Engl. 90·47+19 448 Encina-*1457*
Jones, Hally Foster Eureka Educ. gr. Sigma Kappa-*1327*
A.B., Stanford, 1929, A.M., 1930
Jones, Harry Earl San Diego LD 89+45 106 Branner
Jones, Helen Frances Nevada City Fr. 183+287 361 Roble-*2642*
A.B., Stanford, 1930
[5]Jones, Herbert Auton Burlingame Econ. 90·52–11 Sig. Al. Eps.-*1305*
[1]Jones, Ira Houston Southgate Econ. 93+9 1202 Fulton, P-*2741*
[4]Jones, Iva Marie Stanford Univ. Engl. gr. 208 Roble-*928*
A.B., Iowa, 1928
[13]Jones, John Paul Cody, Wyo. Chem. 116+15 Chi Psi-*1648*
[4]Jones, John Thomas Edmonton, Alta. Engl. gr. 145 Toyon
A.B., Alberta, 1922, A.M., 1926
Jones, Kendall Bakersfield S.Engr. 49·88+51 Phi Sg. Kp.-*538*
Jones, Madison Ralph, Jr. Oakland S.Engr. 136+93 305 Branner-*2054*
Jones, Malcolm Nixon San Bernardino Med. gr. St. Mary's Hosp., SF-sf
A.B., Stanford, 1927
Jones, Marian DeEster Piedmont LD 44+28 117 Roble-*2735*

[4]Jones, Marie Bernice — Stockton — LD ‡ — 223 Roble
[4]Jones, Marvin Lee — Emporia, Kans. — Educ. gr. — Toyon-*1220*
B.S., Kansas State Teachers College, 1923
Jones, Mary Edith — Palo Alto — Engl. 133+50 — Chi Omega-*724*
[13]Jones, Melvin Richard — Portland, Ore. — Pre-Med. 162+86 — PacificGrove-pg
Jones, Nancy Mott — Nevada City — LD 49+24 — 360 Roble-*2642*
[5]Jones, Robert Francis — Glendale — LD 66+59 — Delta Tau Delta-*1363*
Jones, Squier — Palo Alto — Econ. 89·91+37 — 530 Crescent, P-p
A.B., Stanford, 1930
[5]Jones, Theodore Clifton — Los Altos — LD 43+28 — 539 Bryant, P-p
Jongeneel, Johanna — Aptos — LD 49+30 — 146 Roble-*2515*
Jordan, Donald Weller — Los Angeles — Law gr. — 313 Union-*1736*
A.B., Stanford, 1929
[12]Jordan, Jack Carrol — Gillette, Wyo. — Econ. 180+80 — 251 Emerson, P-p
A.B., Stanford, 1930
[4]Jorgensen, Margretha — Yacolt, Wash. — Ed.-G.A. ‡ 67+63 — 205 Roble
[4]Josephson, Glen E. — Honolulu, T.H. — Engl. gr. — MenloJr.Coll.,MP-*1138*
A.B., Illinois College, 1925; A.M., Stanford, 1927
Joujon-Roche, G. Felix — Alhambra — S.Engr. 121+26 — Sigma Chi-*628*
Juda, Felix Edwin — San Francisco — Econ. 104+118 — 142 Toyon-*2353*
Judd, Norma — Tacoma, Wash. — Soc.S. 135·49+26 — 371 Roble-*1443*
A.B., Stanford, 1930
Judson, Martha — Palo Alto — Engl. 181+87 — 1325 Cowper, P-p
A.B., Stanford, 1930
[23]Juliano, José B. — Laguna, P.I. — Bot. gr. — 305 Hamilton,P-Box811,p
B.S., Philippines, 1923, M.S., 1925; Ph.D., Stanford, 1930
Junkert, Wilhelm E. — Palo Alto — Pre-Med. 191+89 — PacificGrove-pg
[12]Jurs, Eugene Ellison — Piedmont — LD 48·24–17 — 316 Encina-*1080*
Jurs, Peter Clyde — Piedmont — LD 93+147 — Kappa Alpha
Jury, Meta Elizabeth — Palo Alto — Soc.S. 135+109 — Kappa Kappa Gma
[4]Kaar, John M. — Bakersfield — LD ‡
Kaehler, Edward Malcolm — Butte City — S.Engr. 109+35 — Phi Sig. Kap.-*538*
Kaetzel, Jack Philip — San Luis Obispo — LD 90+72 — Theta Chi-*1383*
[4]Kagan, Ben Donald — New York, N.Y. — LD — 555 Waverely, P-*125*
Kahn, Felice Adler — San Francisco — Soc.S. 184+171 — 330 Roble-*2644*
A.B., Stanford, 1930
Kai-Kee, Mark — Mayfield — LD 46+76 — SutterPackingCo.,M-m
[4]Kaler, James Edward — Sacramento — Educ. gr. — 555 Lytton, P-p
A.B., Stanford, 1929
Kaneko, George Kazuto — Newcastle — Chem.90·46+16 — 27EncinaAve.,P-p
Kansora, Clement Paul — San Francisco — Phyl. 104·41+13 — PA-RFD 202B, p
[1]Karl, Charles Edward — Los Angeles — LD 42+17 — Branner-*1872*
Karmel, H. Burress — Burlingame — Hist. 139+53 — 111 Toyon-*2757*
Karnopp, Karl Wheeler — Winnetka, Ill. — Span. 103·47+35 — 422 Encina
[23]Kartchner, Wayne E. — Provo, Utah — Geol. gr. — 541 Princeton, M-m
A.B., Brigham Young, 1927
Kaseberg, John Kenneth — Portland, Ore. — Law gr. — 312 Union-*808*
A.B., Stanford, 1928, J.D., 1930
Katzev, Arthur Johiel — Los Angeles — LD 89+140 — 239 Branner-*1426*
Katzev, Herbert Herman — Los Angeles — Econ. 136+132 — 239 Branner-*1426*
[4]Kauffman, Donald H. — Redwood City — Educ. gr. — 152 Hudson, RC-rc
A.B., Drake, 1928
[4]Kauffmann, Helen Eleanor — Sacramento — Educ. gr. — 80 S. 6th, SJ
A.B., San Jose State Teachers College, 1927
[4]Kaulfers, Walter Vincent — La Jolla — Educ. gr. — 302 Toyon
A.B., San Diego State Teachers College, 1925; A.M., Stanford, 1929

[5]Kavanaugh, Charles Richard Hollywood Law gr. 529 Encina
A.B., Stanford, 1928
Kawaguchi, Tadashi M. Shizuoka, Japan E.E. gr. Japanese Club-*598*
A.B., Stanford, 1929
Kawai, Kazuo Hyogo-ken, Japan Hist. gr. Japanese Club-*598*
A.B., Stanford, 1926, A.M., 1928
Kay, Raymond Los Angeles Med. gr. St. Francis Hosp., SF-sf
A.B., Stanford, 1927
Kaye, William August San Francisco LD 50+98 364 Encina-*1028*
Keeble, Robert Edgar Palo Alto LD 87+13 1901 Bryant, P-p
[4]Keegan, Thomas James Palo Alto Law gr. PA-Box 52L, Rt. 1, P
A.B., Stanford, 1928
[5]Keenan, Hugh San Francisco Econ. 41·55–3 400 Encina
[5]Keenan, Marvin Francis Huntington Park Geol. 119·40+46 804 Bryant, P-p
Keesling, James Clarence, Jr. San Francisco LD 38+3 *232* Encina-*2127*
Keho, Katherine McCormick San Francisco Soc.S. 135+193 KappaKappaGam.
Kehr, Philip Benedict Los Angeles Soc.S. 21·163+156 611 Wvly., P-p
A.B., Stanford, 1930
Keipp, James Vernon Long Beach LD 47+41 345 Encina-*1524*
Keller, Richard James San Gabriel LD 88+26 Alpha Tau Omega-*1384*
[1]Keller, William Wessell Napa Engl. gr. *275* Hamilton, P-p
A.B., St. Mary's, 1928
Kelley, Eldred Rae Boise, Idaho LD 47+5 *27* Encina-*1102*
[4]Kelley, Ernest James San Francisco Engl. gr. 9 Union-*908*
A.B., Stanford, 1924
Kelley, Esther Myrick St. Paul, Minn. LD 48+48 160 Roble-*2437*
Kelley, Gordon E. Fort Smith, Ark. Soc.S.-Jn. 100·47+36 Roble-*2456*
[1]Kelley, Grace Osgood Chicago, Ill. Soc.S.: Soc. gr. 565 Salvatierra
A.B., Illinois, 1908
[12]Kelley, Harold Huffman S. Pasadena Hist. gr. 613 Salvatierra-*B*
A.B., Stanford, 1928
Kelley, James Askew Tulsa, Okla. LD 95+110 139 Branner-*2033*
Kelley, Kenneth San Francisco Pre-Med. gr. Kingscote
A.B., Stanford, 1928
Kellogg, Pearson Cameron Sacramento Pre-Med. 90·42+2 Los Altos
[12]Kelly, E. Lowell Palo Alto Psych. gr. 564 University, P-*2344*
B.S., Purdue, 1926; A.M., Colorado State Teachers College, 1928
[4]Kelly, Genevieve San Diego Soc.S. gr. 174 Roble
A.B., California, 1916; A.M., Columbia, 1923
[1]Kelly, Helen Eugenia Watsonville Fr. ‡ 317 Roble
[23]Kelly, James Edward Los Angeles LD 73+15 Alpha Tau Omega
Kelly, John Thomas El Segundo S.Engr. 133+29 Sigma Chi-*628*
Kelly, Marshall Wilton Placerville LD 80+2 Pacific Grove-pg
[4]Kemmerer, Donald L. Princeton, N.J. Hist. gr. 251 Toyon
A.B., Princeton, 1927
Kemp, Charles Robert San Francisco LD 46+15 *232* Encina-*2105*
Kempenich, Margaret L. Portland, Ore. Soc.S. 138+154 Gam.PhiBeta-*1337*
[1]Kendall, Abraham Lincoln Beverly Hills LD 43–24 13 Toyon-*2668*
Kendall, Burt Charles San Francisco LD 85+3 116 Toyon-*1855*
[5]Kendall, Donald Grant Oakland Pol.S. 147+205 ThetaDel.Chi-*1828*
Kendall, Nathaniel James San Francisco LD 94+43 116 Toyon-*1855*
[4]Kendall, Raymond F. Mountain View Educ. gr. Kendall Dell, MV-mv
A.B., San Jose State Teachers College, 1927
Kendrick, Marron San Francisco Econ. 5·118+12 Sigma Nu-*502*
[4]Kennedy, Audley Robert San Jose Educ. gr. 55 S. 6th, SJ-sj
A.B., Southwestern, 1914, A.M., 1914
[23]Kennedy, Edward L. Omaha, Neb. Econ. 146+22 Theta Xi

Kennedy, James Miller	Palo Alto	LD 91+32	Sigma Nu-*1385*
[1]Kennedy, John Hanscom A.B., Stanford, 1930	Omaha, Neb.	Econ. 180+73	Menlo Park-*2671*
Kennedy, Phillip Arnold	Los Angeles	LD 43+44	13 Encina-*2312*
Kennedy, Richard Roberts	Los Gatos	S.Engr. 94·49+4	Theta Xi
Kennedy, Ronald Frederic	Spokane, Wash.	LD 43+31	302 Encina-*2603*
[5]Kennedy, William Howard	Sacramento	Soc.S.-Jn. 90·79+35	247Alma, P-p
Kenney, John Meredith	San Francisco	Pre-Med. 121+26	PacificGrove-pg
[12]Kerl, Phil Lederiegch	Pebble Beach	LD 41–6	105 Sequoia
[13]Kern, Albert Eugene A.B., Stanford, 1930	San Francisco	Econ. 180+32	Phi Kappa Psi
[5]Kerner, Francis Xavier A.B., St. Ignatius, 1929	San Francisco	Law gr.	630 Lincoln, P-p
Kerner, Michael Bernard	New York, N.Y.	S.Engr. 103·40–3	747 Dolores-*1027*
Ketron, Harold Wayne	Wilkes-Barre, Pa.	LD 46·45+12	400 Encina
[3]Keyston, Alfred James	San Francisco	Econ. 135·	251 Toyon-*2383*
[5]Kier, John Alexander	San Diego	Econ. 101·46+3	712 Bryant, P-p
[12]Killingsworth, Cecil Clair A.B., Stanford, 1930	Whittier	Geol.97·83+10	445Ham'ton, P-*1572*
Kimball, Gordon Stanley A.B., Stanford, 1929	National City	E.E. gr.	335 Union-*1796*
Kimball, Judd Dunklee B.S., Whitman, 1929	Walla Wlla, Wash.	Law gr.	247 Alma, P-*1039*
Kimball, Marshall Jerome A.B., Stanford, 1929	Richmond	E.E. gr.	109 Sequoia
[4]Kimberlin, Dorotha Electa	San Jose	LD ‡	364 S. 13th, SJ-sj
Kimberlin, Dorothy Emilee A.B., Stanford, 1930	Sacramento	S.Biol. 6·186+110	Al. Omi. Pi-*1367*
Kimpton, Lawrence	Kansas City, Mo.	Phil. 134+220	236 Branner-*2771*
[4]Kincade, Fay Aileen	Mountain View	Ed.-G.A. ‡ 26+7	567View, MV-mv
Kincaid, Margaret Lorraine	Champaign, Ill.	LD 45+18	326 Roble-*2543*
King, Albert A., Jr. A.B., Stanford, 1930	Tacoma, Wash.	Pol.S. 93·90+98	433 Encina-*2584*
King, Marialice Patricia	San Jose	LD 44+69	112 Roble-*2323*
[1]King, Perry Stanley	Crockett	LD 40·51+29	East Palo Alto
King, Robert Shaw	Palo Alto	LD 44+39	225 Encina
King, Robert William	San Francisco	LD 43+3	359 Encina-*626*
Kinkead, Donald	Cupertino	LD 43–3	Cupertino-Box 280, c
[23]Kinkead, James Alan, Jr.	Cupertino	S.Engr. 159+25	Cupertino-Bx280, c
Kinne, Geraldine S.	St. Louis, Mo.	Hist. 10·142+54	Delta Gamma
[23]Kinney, Edward E.	Albuquerque, N.M.	LD 30+14	426 Encina-*839*
[1]Kinoshita, Arthur Yagaro A.B., College of the Pacific, 1927	Fukuoka, Japan	Econ. gr.	Japanese Club-*598*
Kinsman, Jean A.B., Stanford, 1930	Yorba Linda	Hist. 86·107+68	Chi Omega
[1]Kirby, Marshall A.B., Stanford, 1930	Beverly Hills	Phil. 181+203	256 Toyon-*121*
[4]Kircher, William J. A.B., Stanford, 1920	Santa Barbara	Educ. gr.	566 Lasuen
[34]Kirkpatrick, Leonard Henry A.B., Stanford, 1926	Taft	Fr. gr.	219 Ramona, P-p
[5]Kirkpatrick, Roger K.	Salt Lake City, U.	Geol. 93·42+43	409 Encina-*72*
Kirkwood, Robert Carter A.B., Stanford, 1930	Palo Alto	Econ. 180+136	Phi Gamma Delta
[12]Kitagawa, Frank Kazumasa	Los Angeles	LD 74–23	Japanese Club-*598*
Kitasako, Kenzie A.B., Stanford, 1930	Palo Alto	Econ. 180+15	848 Ramona, P-p

Kite, Walter Edwin — Palo Alto — LD 47+28 — 544 Webster, P-p
[2]Kizer, Kenneth Baumgardner — Palo Alto — Educ. gr. — 1095 Ashby, P-p
A.B., Washington, 1923, A.M., 1927
[4]Kjorlie, Florence I. — Nevada City — Educ. gr. — 334 Waverley, P-p
B.S., North Dakota Agricultural, 1922
[4]Kjorlie, Hilmen Edgar — Nevada City — Educ. gr. — 334 Waverley, P-p
B.S., North Dakota Agricultural, 1923, M.S., 1924
Klabau, Ted — Newton, Kans. — S.Engr. 189+32 — Sigma Chi-*628*
[5]Klein, B. Dudley — Brooklyn, N.Y. — Econ. 105·72+0 — 423 Encina-*2601*
Klein, Russell Ronald — San Francisco — LD 90+99 — Theta Xi
Kleinbach, Henry — Glendale — Pol.S. 102–6 — AlphaSigmaPhi-*1327*
Kline, David I. — Visalia — Pol.S. 180+70 — Del. Tau Del.-*1363*
A.B., Stanford, 1930
[4]Kloster, Olive Eveline — Fresno — Pol.S. gr. — Kingscote
A.B., North Dakota, 1920
[4]Kloster, Pearl Rebecca — Buxton, N.D. — Ed.-G.A. gr. — Kingscote
B.S., North Dakota, 1926
[12]Kluegel, John Van Rensselaer — Sacramento — Law gr. — Alpha Delta Phi-*J*
A.B., California, 1929
Knaebel, Charles Pray — Washington, D.C. — Min. gr. — *227* Sequoia-*1996*
B.S., Yale, 1929
Knaebel, John B. — Washington, D.C. — Min. gr. — *227* Sequoia-*1996*
A.B., Stanford, 1929, Engineer, 1930
Knapp, Helen Mildred — Berkeley — Pre-Med.90·51+53 — 853Mdlefld,P-p
Knapp, Joseph Burke — Portland, Ore. — LD 47+61 — 29 Encina-*2019*
[23]Knapp, Stanley Moser — Eugene, Ore. — Chem. gr. — 55 S. 6th, SJ-sj
B.S., Oregon, 1920
Knight, A. Rowland — Redlands — Pol.S. 94·47+28 — 216 Sequoia-*2225*
Knopp, Grace — Eugene, Ore. — Span. gr. — Madroño-*1163*
A.B., Oregon, 1920; A.M., Stanford, 1930
Knox, Bruce Miller — Sonora — Pol.S. 90·91+6 — 205 Union-*556*
A.B., Stanford, 1930
[5]Knox, Franklin Leonard, Jr. — Los Angeles — Law gr. — Alpha Sigma Phi-*1357*
A.B., California at Los Angeles, 1929
Knox, John Clay — Waterloo, Iowa — Soc.S.-Jn.40·116–2 — ThDlChi-*1828*
[12]Knox, Newton Booth — London, England — Soc.S. 132+145 — 406 Sequoia-*2161*
[4]Knudsen, Mary Gene — San Francisco — Cl.Lt. gr. — Conv. Sac.Hrt,MP-mp
A.B., College of the Sacred Heart, 1928
Koch, Edward Francis — Flagstaff, Ariz. — S.Engr. 52·135+131 — 302Bryant,P-p
A.B., Stanford, 1930
[4]Koch, Karl William — Sacramento — Soc.S. gr. — *225* Toyon
B.S., California, 1921
Koepke, Reimers Doran — Watsonville — Pre-Clin. 185+63 — Al.Kap.Lm.-*658*
A.B., Stanford, 1930
[1]Kokx, Russell George — Orange — Pol.S. 90·75–15 — *252* Toyon-*2668*
Kolliner, Max Grafner — Stanford Univ. — Econ.90·47+66 — 774SantaYnez-*1465*
Kornfeld, M. Marion — Tulsa, Okla. — Geol. gr. — *326* Union-*1622*
A.B., Stanford, 1927, A.M., 1930
Kramer, Rex Willard — Pendleton, Ore. — Law gr. — *312* Sequoia-*1242*
A.B., Stanford, 1929
[5]Krantzthor, Gregory Michael — El Paso, Tex. — Zoöl. gr. — Pacific Grove-pg
A.B., Stanford, 1926
Krause, Robert Edwin — Long Beach — Law gr. — *523* Encina-*2665*
A.B., Stanford, 1929
Krausi, George Bailey — Pasadena — Law gr. — 1020 Bryant, P-*22*
A.B., Stanford, 1929
Krebs, Swanston Harry — Sacramento — Soc.S. 92·88+0 — *234* Union-*1086*
A.B., Stanford, 1930
Krenz, Eric C. W. — Stockton — Econ.-Ac. 188+228 — *334* Enc.-*2668*
A.B., Stanford, 1930

Krenz, Florence Blair — San Francisco — LD 78+82 — 362 Roble-*1517*
Kroeger, Arthur — Fullerton — Soc.S. 151+284 — 331 Encina-*127*
[5]Kropp, Donald Joseph — San Francisco — Law gr. — 226 Sequoia
A.B., Stanford, 1926
[1]Krotser, George Raymond — Woodland — S.Engr.90·107+25 — 406Sequoia-*2756*
A.B., Stanford, 1930
Krueger, DeWitte Washburn — Petaluma — Pol.S. 128·52+30 — 500 Encina-*1752*
A.B., Stanford, 1930
Krug, Norval Blackman — S. Pasadena — LD 40+3 — 219 Encina-*682*
Krumbein, William J. — Portland, Ore. — LD 72–4 — Delta Chi-*1304*
[5]Ku, Tsung Ying — Peking, China — Pol.S. 90·45+10 — 663Hnovr,M-*2431*
Kuchman, Carl — Sacramento — LD 49+20 — 309 Encina-*1611*
Kuechler, Henry Norbury,Jr. — San Rafael — LD 38+8 — 318 Encina-*1846*
Kuhn, Charles Bowman — San Francisco — LD 75+69 — Phi Gamma Delta
Kullmann, Leonard G., Jr. — San Francisco — Soc.S. 22·132+72 — 111 Toyon-*2665*
[1]Kumazawa, Shigeru — Yokohama, Japan — Econ. gr. — Japanese Club-*598*
[1]Kung, Kai Ming — Shantung, China — Chem.123·0–12 — 327Cowper,P-*2785*
[4]Kurtz, Jeanne Virginia — Los Angeles — Psych. 132+74 — 540 Lowell, P-p
Kusumoto, Niroku H. — Hiroshima, Japan — Pre-Clin.188+95 — JapaneseClub-*598*
A.B., Stanford, 1930
Laborde, Henri John — San Francisco — LD 43+13 — 321 Encina-*1486*
[5]Lacey, Jack Maurice — San Francisco — Econ. 133·42+2 — 183 Everett, P-p
[5]LaChapelle, Paul Andrew — Los Angeles — Soc.S. 13·150+79 — Delta Upsilon
[4]Lackey, Ralph Leroy — Elma, Wash. — Educ. gr. — 521 Lasuen
B.S., Whitman, 1925
[4]Lagomarsino, Melba M. — Angels Camp — S.Biol. gr. — Roble
A.B., San Francisco State Teachers College, 1928
[4]Laib, Arthur Joseph — San Francisco — LD — 122 Toyon
Laidlaw, Gertrude — Sausalito — Soc.S. 131+8 — Kappa Alpha Theta
Laird, William Harrison — Los Angeles — Pol.S. 174+66 — Zeta Psi-*B*
[2]La Marsna, Fred Gibson — Taft — Geol. 90·29–26 — 558 Encina-*618*
[4]Lamb, Mariet Grey — Los Angeles — Engl. gr. — 200 Roble
A.B., Wisconsin, 1926
Lambert, Tom Ben — Tulsa, Okla. — LD 90+78 — 139 Branner-*2613*
Lamoree, Robert Whipple — New Castle, Pa. — Law gr. — 564 University, P-p
A.B., Michigan, 1929
[23]Land, William Brooke — Oroville — Ed.-G.A.25·119+23 — Al.Kp.Lm.-*658*
Landwehr, Walter Richard — Palo Alto — Geol. gr. — 237 Hawthorne, P-p
Engineer, Montana State School of Mines, 1922
Lane, Charles Howard — Palo Alto — Engl. 118·62+51 — 256 Kellogg, P-p
A.B., Stanford, 1930
Lane, Henry John — Eureka — Pre-Med. 138+23 — PacificGrove-pg
Lane, Josephine Olga — Palo Alto — Ed.-G.A. 134+166 — 942 Scott, P-p
Lang, John Henry — San Mateo — Hist.139+121 — 710W.Poplr,SM-sm
[1]Langdon, Gordon — Piedmont — LD 45+1 — Delta Upsilon
[4]Langford, Roy Clinton — Manhattan, Kans. — Psych. gr. — 333 Lincoln, P-p
B.S., Kansas State Agricultural, 1925, M.S., 1926
[1]Langstaff, Clarence Heald — Pasadena — Law gr. — 325 Union-*1190*
A.B., Stanford, 1928
[4]Lantz, Clara M. Beatrice — Ventura — Educ. gr. — Milpitas-Box 184, m
A.B., California, 1920; A.M., Stanford, 1922
[4]Lantzeff, George — Palo Alto — Educ. gr. — 559 Cowper, P-p
Graduate, Petrograd, 1918; A.M., Stanford, 1922
[5]Lapachet, Bernard Kenny — San Francisco — Pol.S. 103·83–2 — Kappa Alpha
[4]Lapham, Noel Pierce — San Diego — Educ. gr. — 215 Union
A.B., San Diego State Teachers College, 1926
[12]Larsen, Arthur Christian — San Francisco — Mil.S. 5·159–8 — Sigma Chi-*628*

Larsen, Leonard Hans — Sanger — Med. gr. — 2321 Sacramento, SF-sf
A.B., Stanford, 1929
Larsh, Elisabeth — San Francisco — Engl.144+192 — Delta Del. Del.-*1325*
[4]Larson, Benjamin Edward — Mayfield — Educ. gr. — 634 College, M-m
B.S., Linfield, 1922
[34]Larson, Stanley Warren — Claremont — Econ. 88·80+30 — PA-RD1,Bx365,p
Lasell, Donald Widney — Lodi — S.Engr. 170+68 — 534 Encina-*2781*
[33]Lasley, Frank Robert — Pasadena — Econ. 181+34 — Phi Kappa Psi
A.B., Stanford, 1930
[4]Lathers, Olive Gladys — Palo Alto — Educ. gr. — 1010 Bryant, P-p
A.B., Reed, 1919; M.S., Washington, 1927
Latimer, George Andrew — Los Angeles — LD 44+27 — 109 Encina-*1852*
Laube, DeLora Lee — Seattle, Wash. — Engl.-P.Sp. 95·39+36 — Kap.Al.The.
Laubersheimer, Anton — Los Angeles — S.Biol. 9·175+40 — Chi Psi-*1648*
A.B., Stanford, 1930
[4]Laubhan, Roy K. — Fresno — LD — Union
Laudenslager, Frederic Henry — Newark — Econ. 186+63 — 119 Toyon
A.B., Stanford, 1930
Laughlin, Robert James — San Francisco — LD 77+55 — 104 Sequoia-*612*
Lauritzen, John Barker — Salinas — Law gr. — 346 Encina-*2802*
A.B., Stanford, 1929
Lava, Horacio Clemente — Balara, P.I. — Econ.-Acct. gr. — 705 Cowper, P-p
B.S., Philippines, 1926; A.M., California, 1928
Lawler, Philip Wendell — Los Angeles — Med. gr. — 2396 Webster, SF-sf
A.B., Southern California, 1925
[5]Lawler, Thomas Gorman — Burlingame — Bact. gr. — 1540 Howard, B-b
A.B., Stanford, 1930
[4]Lawrence, Anna Trask — Palo Alto — LD ‡7+0 — 1129Parksn,P-Bx 805,P
[4]Lawrence, Arta Frances — Everson, Wash. — Educ. gr. — 432 S. 15th, SJ-sj
A.B., Washington, 1925
[1]Lawrence, Hamilton Pharr — Los Altos — LD 13+5 — Los Altos-Box 575, la
Lawrence, Robert H. — San Fernando — LD 45·45+28 — 236 Encina-*1232*
Lawry, Edwin Vance — Palo Alto — Pre-Med. 132+61 — 1129Cowper,P-p
Lawry, George Voris — Palo Alto — LD 46·89–3 — 1129 Cowper, P-p
[4]Laws, Awbrey Derwin — San Jose — Educ. gr. — 284 S. 11th, SJ-sj
A.B., San Jose State Teachers College, 1929
[1]Lawshe, Henry Francis — Palo Alto — Phil. 119+30 — 433 Melville, P-p
[4]Lawson, Fred Douglas — Neodesha, Kans. — Educ. gr. — 347 Ramona, P-p
B.S., Kansas State Teachers College, 1925; M.S., University of Kansas, 1929
Lawson, Stanley King — Wheeling W.Va. — Law gr. — 324 Union-*2671*
A.B., West Virginia, 1927; LL.B., Stanford, 1930
Lawton, Mary Elisabeth — Oakland — LD 48+75 — 230 Roble-*1887*
Layne, Henry Marion — Whittier — S.Engr. 93·45+61 — 177 Everett, P-p
Lazar, George Albert, Jr. — San Diego — Pol.S.46·124+101 — 327Wavrley,P-p
A.B., Stanford, 1930
[5]Lazarus, Ralph Edward — Los Angeles — LD 57+74 — 244 Encina-*1793*
Leach, Charles Wendell — Los Angeles — Med. gr. — 2321 Sacramento, SF-sf
A.B., Southern California, 1927
Leachman, F. Marian — Vallejo — Pol.S. 180+79 — Chi Omega
A.B., Stanford, 1930
Lean, Richard Gerichs — San Jose — Econ. 186+270 — Al. Kap. Lam.-*658*
A.B., Stanford, 1930
[12]Lease, Leland Jacob — East Liberty, Ohio — Educ. gr. — 446 Hamilton, P-p
A.B., Ohio Wesleyan, 1920
Leavell, Charles Henry, Jr. — El Paso, Tex. — LD 45+13 — 349 Encina-*1824*
Leavitt, John Wheeler — San Francisco — LD 47–8 — 320 Encina-*2113*
[12]Leavitt, Newton Allan — San Francisco — LD 95+32 — 419 Alma, P-p
Lechich, George Paul — Hermon, N.Y. — LD 83–7 — 499 Governor's

[4]Lechten, A. Madeleine — Menlo Park — Ed.-G.A.gr.800RbleMP-Bx186,mp
A.B., Stanford, 1923
Lee, Charles Henry, Jr. — Hollywood — LD 54+19 — 429 Encina-*923*
Lee, Clarence Michael — Detroit, Mich. — Econ. 90·48–2 — 208 Sequoia-*1305*
[4]Lee, Dorris May — Los Angeles — Educ. gr. — 534 Guinda, P-p
A.B., Occidental, 1926; A.M., Columbia, 1928
[4]Lee, Elsie H. — Stockton — Engl.-P.Sp. gr. — 334 Roble
A.B., Willamette, 1925
Lee, Frank Barstow — Berkeley — S.Engr. 11·176+71 — 216 Seq.-*1182*
A.B., Stanford, 1930
[1]Lee, George — Shanghai, China — S.Bus. gr. — 1535 College, M-*1254*
B.C.S., Chih Tze University, 1928
[1]*Lee, Green Moren — London, Ky. — Pol.S. 105+137 — 310 Sequoia-*1290*
[14]Lee, Harry Anderson — Santa Monica — Econ. 41·71+3 — Zeta Psi-*B*
[4]Lee, J.Murray — Los Angeles — Educ. gr. — 534 Guinda, P-p
A.B., Occidental, 1926; A.M., Columbia, 1928
Lee, John Baker, Jr. — S. Pasadena — Econ. 180+*224* — Chi Psi-*1648*
A.B., Stanford, 1930
Lee, Ki Cheng — Shantung, China — Soc.S.135·25–10 — 327CowperP-*2785*
Lee, Lewis C. — Auburn — LD 97–20 — Sigma Nu-*1385*
[1]Lee, Wellington Y.C. — Shanghai, China — Econ. gr. — 942 Ramona, P-p
A.B., China National, 1928
[23]Le Furgey, Jules Osborne — San Francisco — LD 28+15 — 410 Encina-*1192*
[1]Leggett, Bess Marion — Atherton — LD 48–11 — Atherton
[4]Lehan, James Baird — Greeley, Colo. — Pol.S. gr. — 245 Toyon-*980*
A.B., Colorado State Teachers College, 1927
Lehmann, Matthew — Oxnard — S.Engr.16·105+15 — 137Branner-*693*
[4]Lehmann, Otto Lee — Taft — Hist. gr. — 206 Union
A.B., California, 1926
[4]Lehr, John William — Los Altos — Hist. gr. — 170 Laurel, P-*1828*
A.B., Stanford, 1929
Leib, Charles Bennett — San Jose — LD 89+73 — Zeta Psi-*B*
Leib, Mary Sandilands — San Jose — LD 88+124 — Kappa Kappa Gamma
Leib, Samuel Franklin — San Jose — LD 94+22 — Zeta Psi-*B*
Leicester, Henry Marshall — San Francisco — Chem. gr. — 207 Union-*1522*
A.B., Stanford, 1927, A.M., 1928, Ph.D., 1930
[4]Leikvold, Mildred Gennette — Santa Cruz — Educ. ‡ — 536 Alvarado
Leistner, Mary Louise — Stockton — LD 6·88+79 — Alpha Phi-*1387*
Leland, George Reardon — Douglas, Ariz. — LD 48+5 — 350 Encina-*1466*
Leland, Hugh Hamilton — Ottawa, Ill. — Econ. 180+9 — Theta Del. Chi-*1828*
A.B., Stanford, 1930
Lemmon, Allen Bosley, III — Palo Alto — S.Engr. 184+99 — 1116 Ramona, P-p
A.B., Stanford, 1930
Lemmon, Dwight Moulton — Palo Alto — S.Engr. 91+113 — 1116 Ramona, P-p
Leonard, Burrel — Cupertino — Soc.S. 145+134 — Cupertino-Bx127,c
[3]Leonard, J. Rollin — Stanford Univ. — Econ. gr. — 316 Sequoia
A.B., Stanford, 1924
[1]Leong, Bing Chew — Hong Kong, China — LD — 635 Bryant, P-*997*
Leonhardt, J. Alfred — Covina — S.Engr. 153–9 — Theta Xi
[5]Leonhart, E. Eugene — Piedmont — Econ. 89·42–7 — Delta Chi-*1304*
Lercari, David Joseph — Calistoga — LD 77+6 — 204 Sequoia-*2118*
Lerrigo, Frank Charles — Topeka, Kans. — Law gr. — 309 Union-*565*
A.B., Stanford, 1928
[4]Leschke, Hans Helmut — San Francisco — LD — 203 Union
[4]Lesley,Everett Parker,Jr. — Stanford Univ. — LD — 134 Toyon
Letroadec, Walter Emile — Burlingame — Econ. 181+184 — 228 Branner
A.B., Stanford, 1930

Leung, Ping Kei A.B., Lingnan, 1929	Canton, China	S.Bus. gr.	Chinese Club-*824*
Leverenz, Humboldt Walter A.B., Stanford, 1930	San Jose	Chem. 184+237	1434Ellen,SJ-*1305*
Levi, Leon Herman A.B., Stanford, 1928	Los Angeles	Law gr.	415 Encina-*2003*
Levin, John Milton A.B., Stanford, 1930	Seattle, Wash.	Econ. 181+121	Kingscote
[4]Levin, Lewis Benjamin	San Francisco	LD	209 Union
Levin, Robert Louis A.B., Stanford, 1930	San Francisco	Econ. 22·158+46	142 Toyon-*2147*
Levis, Orin Charles, Jr.	Long Beach	LD 48·47–2	345 Encina
[12]Levit, William Harold A.B., Stanford, 1928, J.D., 1930	San Francisco	Law gr.	319 Union-*1187*
Levy, Adolph Haffenberg A.B., Stanford, 1928	Los Angeles	Law gr.	759 Middlefield, P-*566*
[23]Levy, Maurice, Jr.	Los Angeles	LD 77+71	208 Branner-*566*
Lewis, Charles Philip	Lakeport	Soc.S. 90·59+16	MloSch.,MP-*2162*
[3]Lewis, Douglas Batchelder A.B., Stanford, 1930	Atherton	Econ. 180+6	Menlo Park-mp
Lewis, Earl Leonard	San Francisco	LD 49+5	355 Encina-*1275*
Lewis, Frank Tait A.B., Colorado College, 1929	Colorado Springs,Colo.	Econ. gr.	176 Bryant, P-*2381*
[4]Lewis, Georgiana	San Francisco	Pol.S.‡	Atherton-RFD 345, a
[4]Lewis, Gwena Elizabeth B.S., Columbia, 1926	Douglas, Ariz.	Educ. gr.	377 Roble
[5]Lewis, John Hamilton	Winters	Econ.117+26	ThetaDeltaChi-*1828*
Lewis, Laurel Jones	Visalia	LD 51+41	106 Encina-*2214*
Lewis, Marian Winsor	Los Angeles	LD 90+104	Kappa Alpha Theta
[5]Lewis, Peter DeLancey	Menlo Park	LD 85+4	Beta Theta Pi-*1335*
Lewis, Ralph Charles A.B., Occidental, 1926	San Francisco	Med. gr. 2321	Sacramento, SF-sf
Lewis, Robert Porter	Phoenix, Ariz.	Econ. 147+108	Beta Theta Pi-*1335*
[4]Lewis, Wesley Anna Ph.B., Chicago, 1921; A.M., Southern California, 1926	Los Angeles	Engl. gr.	750 Bryant, P
[12]Lewis, William Terrell	San Francisco	S.Engr. 123–26	Theta Xi
Lewton, Mary Elizabeth	Berkeley	LD 44+58	221 Roble-*1887*
[23]Ley, John Charles	Yreka	Span. 90·19–15	205 Emerson, P-p
[5]Ley, Marjorie Marie A.B., Stanford, 1930	Hollister	Math. gr.	208 Roble-*1124*
[12]Li, Charles A.B., Stanford, 1930	Kwangsi, China	Educ. 90·90+43	Chinese Club-*663*
[1]Li, Chih Min A.B., Ohio State, 1927; A.M., Stanford, 1930	Honan, China	Pol.S. gr.	Chinese Club-*2556*
[5]Liang, Chih-Chang	Peking, China	Pol.S. 90·50+32	ChineseClub-*2029*
[12]Lieber, Louis Charles, Jr.	Los Angeles	Econ. 117+45	Alpha Delta Phi-*J*
[4]Lighton, Edward W. A.B., New Mexico, 1922	Albuquerque, N.M.	Educ. gr.	764 Channing, P-p
[5]Likens, George Barry	San Francisco	Econ. 163+91	202 Branner-*80*
[5]Lilienthal, Ernest R.	San Francisco	Hist. 123+98	235 Toyon-*117*
Lillard, Richard Gordon A.B., Stanford, 1930	Sacramento	Engl. 90·103+126	247 Toyon-*941*
[4]Lillie, Raymond Fell A.B., Stanford, 1929	Palo Alto	Germ. gr.	219 Ramona, P-*2751*
[234]Lilly, John Arthur	Palo Alto	Econ. 166+146	466 Forest, P-p
[5]Lilly, Robert Tompkins	Palo Alto	Psych. 167+16	466 Forest, P-p
[4]Lindahl, Glenn Wilbert B.S., Kansas State Teachers College, 1928	Munden, Kans.	Educ. gr.	17 Toyon-*990*

Lindahl, Viva May — Deer Park, Wash. — Educ. gr. — 666 Homer, P-p
A.B., Washington State, 1916; A.M., Stanford, 1930
Lindelof, George Edward, Jr. — Hawthorne — Law gr. — 407 Encina-*909*
A.B., California at Los Angeles, 1929
[5]Linden, Leonard Robert — San Mateo — Ed.-G.A.142+63 — Hlsbrgh.,SM-sm
Lindenmayer, J. Edward — San Francisco — Bact. 101·86+29 — 440 Mlvle, P-*1276*
A.B., Stanford, 1930
Linderholm, Evelyn Bernice — Menlo Park — Math.gr. — 312Prtrg.,MP-Bx37,mp
A.B., Stanford, 1929, A.M., 1930
Lindman, Ray Hammond — Santa Ana — Soc.S.-Jn.90·51+66 — 333Wvrly,P-p
[5]Lindow, Jack Henry — San Francisco — Econ. 90·80+30 — Phi Sig. Kap.-*538*
Lindquist, Alfred Henry — Los Gatos — S.Engr.90·46+12 — 333 Lincoln, P-p
Lindsay, Charles Hunter — Evanston, Ill. — LD 25·93–7 — Delta Tau Delta-*1363*
[1]Lindsay, Thomas Irwin — San Jose — S.Bus. gr. — 212 Sequoia-*823*
A.B., Stanford, 1929
Lindsley, Fred VanSant — Hollywood — LD 67+7 — Phi Kappa Sigma
Lindstrom, Charles Wesley — Tacoma, Wn. — LD 91+72 — 635 Bryant, P-p
[234]Lindstrom, Elmer John — San Jose — Econ. gr. — 235 Union
A.B., California, 1928
Linfesty, John William — El Paso, Tex. — Pre-Med.90·45+5 — 520Alvrdo-*2215*
[2]Linley, John Theodore — Azusa — LD 43–35 — Alpha Delta Phi-*J*
[13]Linscott, Phyllis Mar — Stanford Univ. — Engl.-P.Sp.gr. — Kingscote-*1325*
A.B., Stanford, 1929
Linton, C. McClelland — Los Angeles — LD 91+53 — Chi Psi-*1648*
[5]Lipman, Richard A. — Hollywood — Psych. 88·67–14 — 557 Encina-*515*
Lippitt, Sidney Grant, Jr. — San Francisco — Econ. 43·137+28 — 211 Branner-*1026*
A.B., Stanford, 1930
Lippman, Robert Weiler — Whittier — LD 51+82 — 237 Encina-*1108*
Lipsitch, Lester Samuel — Los Angeles — LD 47+56 — 244 Encina-*958*
Lissner, Aline Mathilda — Los Angeles — LD 8·82+105 — 202 Roble-*673*
Lites, Arthur Presley — Palo Alto — LD 92+82 — 465 Sheridan, M-m
Little, Walter B. — Tacoma, Wash. — LD 51·50+59 — 326 Encina-*1531*
[1]Little, Winifred Octavia — Riverside — Cl.Lit. gr. — 265 Roble
A.B., Stanford, 1927, A.M., 1928
[3]Littlefield, Marion Virginia — Palo Alto — Pol.S. 119·14+5 — 800 Cowper, P-p
[234]Liu, Henry Chao — Hupeh, China — Educ. 135·31+9 — Chinese Club-*24*
[5]Liu, Ming Yueh — Kirin City, China — Educ. gr. — 948 Ramona, P-*1010*
A.B., Peking National Normal University, 1926
[2]Liu, St. Sure — Shanghai, China — Econ. gr. — 225 Kipling, P-p
B.C.S., Fuh Tan University, 1926
[5]Liu, Tsun Hsien — Honan, China — Chem. gr. — 510 Encina-*1261*
A.B., Ohio State, 1927
Livermore, Norman B., Jr. — San Francisco — LD 42+31 — 223 Encina-*2051*
[4]Livingston, Ethel — San Francisco — LD 15+10 — 346 Roble
[5]Livingstone, John Roger — San Leandro — Hist. 18·106+38 — 129 Emerson, P-p
Livingstone, Stanley Colby — San Diego — Econ. 180+167 — Kappa Alpha
A.B., Stanford, 1930
Lloyd, Francis Vernon, Jr. — Santa Barbara — LD 41+14 — 692 Mirada-*1857*
[4]Lloyd, Paul Eugene — Hollywood — Math. gr. — 420 Tennyson, P-p
A.B., Stanford, 1929
Lloyd, Prescott Rees — Palo Alto — Pre-Med.90·45+37 — 410Leland,M-m
[5]Lo, Chen Cho — Hunan, China — Engl. 90·44+8 — Chinese Club-*2234*
[1]Lo, Chi Jung — China — Zoöl. gr. — 212 Union-*1060*
A.B., Stanford, 1929, A.M., 1930
[3]Lo, Wen Ching — Shansi, China — Psych.90·44+1 — 245Ramona,P-*2424*
van LöbenSels, Maurits Just — Vorden — LD 86+27 — Delta Chi-*1304*
[4]Lobo-Guerrero, Alberto — Bogota, Colombia — Geol. ‡ — Ventura-v

[4]Locke, Allan Fitzgerald A.B., California, 1922	Vallejo	Educ. gr.	312 Union
Lockett, Rowena Ruth	Alhambra	Engl. 138+59	Delta Gamma-*1366*
Lockey, Janet	Palo Alto	LD 44+31	103 Roble-*2219*
Loeffler, Allison Rose A.B., Stanford, 1930	Los Angeles	Econ. 180+91	Alpha Omi. Pi-*1367*
[23]Loel, Wayne Frederick A.B., Stanford, 1916, A.M., 1917	Los Angeles	Geol. gr.	University Club, LA-la
Loewy, David John	Fort Whipple, Ariz.	LD 45+68	249 Encina-*1653*
[4]LoForti, Robert Vernon	Fresno	LD	324 Union-*1270*
Logan, Glen Earnest	Los Angeles	S.Engr. 142+43	Delta Chi-*1304*
[5]Logan, Harry Lee	Colton	LD 98+120	Delta Chi-*1304*
[4]Logan, Jack Pollock	Tooele, Utah	LD	328 Union
Lohman, Neal Joseph B.S., Southern California, 1929	Parlier	Educ. gr.	324 Union-*686*
[4]Lohse, Hans B.S., Nevada, 1927	Paradise Valley, Nev.	Chem. gr.	521 Lasuen
[1]Lomax, Frances Harriet	Broken Bow, Neb.	Econ. 107+50	Roble-*2646*
[34]Lombardi, Frank Palmer	Culver City	LD 35–7	Encina
[4]Lombardi, James Grimes	Los Angeles	LD ‡	538 Lasuen
[4]Londahl, Cyrus Ansgar A.B., Stanford, 1926	Oakdale	Educ. gr.	1001 Ramona, P
London, Clifford Ellsworth	Westwood	S.Engr. 90-38+1	Al.Kap.Lm.-*2121*
Long, Charlotte Jeanne	Stanford Univ.	Span. 133+176	Del. Del. Del.-*1325*
Long, George Irving, Jr. A.B., Stanford, 1930	San Francisco	Econ. 180+52	Kappa Alpha
Long, Herbert Malcolm	San Francisco	LD 45+5	404 Encina
[5]Long, John Townsend A.B., Stanford, 1929	Los Angeles	Law gr.	505 Cornell, M-m
Long, Leland Reed A.B., Stanford, 1929	Stanford Univ.	Engl. gr.	583 Salvatierra
Lonon, Malcolm Sinclair A.B., Stanford, 1930	Crockett	Econ. 188+81	611 Waverley, P
Loofbourow, Robert Lincoln A.B., Stanford, 1929	Berkeley	Min. gr.	210 Sequoia-*2158*
Loomis, J. Vard	Arroyo Grande	Econ. 123+1	114 Encina-*2665*
Looney, William Matthew	Santa Clara	Soc.S. 90-38+4	165Hndrson,SC-sc
Lorton, Paul	San Mateo	Soc.S.-Jn.90-46+71	111Toyon-*1290*
[4]Loud, Katherine Burrell A.B., Pomona, 1925	Miles City, Mont.	Educ. gr.	Kingscote
Love, Carleton Ferrier	Watsonville	Chem. 90-45–10	445 Encina-*1172*
[12]Lovelace, Robert Reed	Dinuba	S.Engr. 108+47	114 Toyon-*6*
[5]Low, Duncan Douglas	Palo Alto	Soc.S. 172+219	509 Coleridge, P-p
Low, John Stewart A.B., Stanford, 1928, Engineer, 1930	Berkeley	E.E. gr.	305 Union-*60*
[4]Low, Remington Milner	Portland, Ore.	LD	114 Toyon-*1354*
Lowe, Kales Eldon	Burley, Idaho	LD 94+24	104 Branner-*2168*
Lowe, Pardee A.B., Stanford, 1930	San Francisco	Econ. 189+157	11 Toyon-*2347*
[5]Lowson, Jack Marnie	Hilo, T.H.	LD 51+35	250 Encina-*1237*
von Lubken, Philip A.B., Whitman, 1927	Hood River, Ore.	Math. gr.	1535 College, M-*1532*
Lucas, Carl Dunn	Hollywood	LD 58+11	348 Encina
Lucas, Russell Stillwell	Richmond	LD 75+64	238 Branner-*1787*
Luce, Raymond Frederick	San Francisco	Econ. 5-131+0	Sig Al. Eps.-*1305*
Lucy, Frank Allen A.B., Stanford, 1929, A.M., 1930	Palo Alto	Chem. gr.	460 Homer, P-p

Lucy, Richard Francis — Palo Alto — Ed.-G.A. 129+84 — 460 Homer, P-p
Lui, Ralph Thomas — Napa — Pol.S. 136+119 — 230 Branner-*1982*
Lumb, Thomas R. — Campbell — Chem. gr. — 303 Sequoia
A.B., Stanford, 1929, Engineer, 1930
[5]Lunceford, Albert Edward — Ottawa,Kans. — Educ. gr. — 947 Waverley, P-*1984*
A.B., Kansas State Teachers College, 1913; A.M., Columbia, 1920
[4]Lundy, Bessie Naomi — San Jose — Educ. gr. — 1226 Yosemite, SJ-sj
A.B., College of the Pacific, 1922
Lundy, Robert Floyd — San Jose — Econ. gr. — 1226 Yosemite, SJ-*998*
A.B., Stanford, 1928
[5]Lung, Chieng Fu — Canton, China — Econ. 90·44+14 — 520 Slvtierra-*1454*
[1]Lung, Paul Edward — Tacoma, Wash. — Chem. gr. — 948 Ramona, P-p
B.S., Puget Sound, 1927
Lusignan, Frank W. — Stockton — Med. gr. — 2180 Washington, SF-sf
A.B., Stanford, 1928
Luther, Chester Francis — Auburn — Math. gr. — 6 Union-*2714*
A.B., Stanford, 1928, A.M., 1929
[12]Lyell, Herbert Leslie — Palo Alto — S.Engr.46·78+56 — MnloPk-Bx229,p
Lyman. Willis Theodore — Long Beach — Law gr. — 209 Union-*621*
A.B., Pomona, 1928
Lynch, Elizabeth Ann — San Francisco — Engl.-P.Sp. 30·181+155 — Kp.Al.Th.
A.B., Stanford, 1930
[5]Lynch, Maria Celeste — San Francisco — LD 38–4 — 352 Roble-*1876*
Lynden, John Ross — Campbell — Econ. 90·46+13 — Sigma Nu-*1385*
Lyndon, Albert Ora — Waldport, Ore. — Econ. 89·46+6 — Los Gatos-lg
[5]Lyon, Carl Andrew — Los Altos — Econ. 24·98+7 — Phi Kappa Sigma
Lyon, Clara Viola — Fullerton — Educ. gr. — 565 Salvatierra-*1587*
A.B., Pomona, 1929
Lyon, Harry Tom — Santa Maria — LD 81–2 — Delta Chi-*1304*
[1]Lyon, Joyce Cowling — Burlingame — Soc.S. 181+213 — Sigma Kappa-*1327*
A.B., Stanford, 1930
[3]Lyons, William — Los Angeles — Pol.S. 106·17+5 — 202 Portola,P-*685*
[12]Lyster, Russell Withenbury — Los Angeles — Bact. 40·166+12 — 325 Union-*1260*
A.B., Stanford, 1930
McAfee, William Arthur — Palo Alto — Pol.S. 137+71 — 155 Tasso, P-p
[1]McAllister,SumnerHatch — StanfordUniv. — Chem. gr. — 543 Encina-*618*
A.B., Stanford, 1929, A.M., 1930
McAnaw, John Ted — Cincinnati, Ohio — Pol.S. 98·79+36 — 233 Union-*856*
[23]Macarthur, John Daniel — Concord — LD 29+12 — 447 Encina
Macbeth, Norman, Jr. — Los Angeles — LD 92+108 — Phi Kappa Psi
McBroom. Nellis Verna — Chehalis, Wash. — Span. gr. — Perry, MP
A.B., Vassar, 1926
[1]McCaffery, Joe James — Butte, Mont. — Pol.S.114·67+10 — Del.TauDel.-*1363*
A.B., Stanford, 1930
[1]McCall, Elizabeth Fluhrer — Visalia — Educ. gr. — Chi Omega
A.B., Stanford, 1927
McCallum, Bruce — Salinas — LD 48·46+15 — 402 Encina-*862*
[5]McCallum, William Jackson — Salinas — Chem. gr. — 853 Channing, P-p
A.B., Stanford, 1930
[12]McCandless, John Bole — Los Angeles — Econ. 180+2 — Delta Kappa Epsilon
A.B., Stanford, 1930
[5]McCarthy, James Howard — Los Angeles — LD 35+1 — 128 Encina-*1461*
McCarty, Maclyn — Portland, Ore. — LD 48+65 — 310 Encina-*1712*
[3]McCaughna,FrankArchibald — LosAngeles — Econ.42·104+12 — KappaSigma-*1326*
[4]McCaughna, George W. — Los Angeles — Econ. 87·59–19 — 826 Homer, P-p
[5]McClatchie, Winifred Lovisa — Palo Alto — Chem. gr. — 1119 Middlefield, P-p
A.B., Stanford, 1929, A.M., 1930
McCleave, Constance H. — Berkeley — LD 68+38 — Gamma Phi Beta-*1337*

McCleave, Mary Trowbridge Berkeley Psych. 165+84 Gam. Phi Be.-*1337*
[4]McClellan, Helen Elizabeth Martinez LD ‡ 166 Roble
[4]McClintic, Ray Hugh San Jose Educ. gr. 146 Seale, P-p
A.B., San Jose State Teachers College, 1926
McClintock, John Chamberlain Altadena Hist. 186+262 535 Salvatierra-*954*
A.B., Stanford, 1930
[12]McClintock, Robert Mills Altadena Hist. 169+300 535 Salvatierra-*954*
McClure, William Henry Eureka LD 85+1 531 Cowper, P-p
[1]McCollister, Richard H. San Francisco LD 65–11 117 Cowper, P-p
Maccono, Francis Joseph Mountain View S.Engr.115·76+22 869Dna,MV-mv
McCormack, Douglas Hamilton Rio Vista Econ. 181+106 305 Branner-*1468*
A.B., Stanford, 1930
[4]McCormick, Helen Irene San Jose Educ. ‡ 365 E. St. James, SJ-sj
McCormick, Manson Fielding Fresno Soc.S. 155+179 224 Toyon-*1468*
McCormick, Sloan Peckham Fresno Soc.S. 15·107+36 224 Toyon-*2365*
McCormick, William Holt Santa Clara LD 42+31 227 Encina-*844*
McCoy, Claudius Thomas TwinFalls,Ida. LD 95+78 Alpha Kappa Lam.-*658*
McCraney, Thomas Orlando Nevada City LD 46–4 109 Encina-*1792*
McCreadie, Janis San Francisco LD 47+90 262 Roble-*2392*
McCreery, Alice Tacoma, Wash. Hist. 29·141+19 Alpha Phi-*1387*
[23]McCreery, Helen Tacoma, Wash. LD 47·32+32 Alpha Phi-*1387*
[23]McCullough, Elizabeth Irene Pasadena Soc.S. 88·31+40 214 Roble-*1046*
McCullough, James Y. New Albany, Ind. Zoöl. 137+99 Pacific Grove-pg
[5]McCully, Henry Howard Palo Alto Zoöl. 48·89+53 1035 Bryant, P-p
McCurdy, Allan Hugh Eureka Hist. 90·47+76 315 Sequoia-*2606*
McCurdy, Richard Clark Pasadena S.Engr.169+124 BetaThe.Pi-*1335*
McDaniel, David Jamison San Francisco LD 44+34 359 Encina-*1575*
[4]McDaniel, John Wesley Bakersfield Psych. gr. 249 Toyon
A.B., Arizona, 1925, A.M., 1927
McDermott, Allan Ludwick Santa Ana S.Engr. 139+92 Delta Upsilon
McDermott, John Carson San Francisco Med. gr. 2180 Washington, SF-sf
A.B., Stanford, 1927
McDermott, William C. Stanford Univ. Law gr. 514 Encina
A.B., Stanford, 1929
[23]McDonald, Earl Stockton M.E. gr. 558 Encina
A.B., College of the Pacific, 1929
[23]MacDonald, Graeme K. San Francisco LD 28+7 430 Encina-*2432*
[5]McDonald, James A. Machias, Wash. Geol. 135·44+5 731 Emerson, P-p
MacDonald, Russell Degen S. Pasadena LD 88+9 220 Toyon-*1912*
[23]McDougall, John A. Portland, Ore. S.Engr. 95·78+7 218 Toyon-*603*
[234]McDougall, Margaret E. Santa Barbara LD 47–7 355 Roble-*1435*
[12]*McDowell, Carl Elliott Los Altos Pol.S. 7·111+113 Los Altos-*131*
[12]McDowell, John Ezra, Jr. Los Altos Hist. 180+115 Los Altos-*1384*
A.B., Stanford, 1930
McDowell, Martha Clift Palo Alto Hist. 180+268 350 Addison, P-p
A.B., Stanford, 1930
[1]McDowell, William Peirce Palo Alto LD 40·61–24 350 Addison, P-p
McElvenny, Ralph T. Salt Lake City, U. Law gr. Phi Gamma Delta
A.B., Stanford, 1928, J.D., 1930
McElwain, Lester Stafford Burlingame Econ.131+69 PhiSigmaKappa-*538*
[5]McFadden, Loren Ellsworth Palo Alto Educ. gr. 847 Bryant, P-p
A.B., Colorado State Teachers College, 1918; A.M., Nevada, 1926
McFarland, Joseph H. Santa Barbara Econ. 90·45+40 245 Branner-*1682*
McGarr, Arthur F. Muskogee, Okla. S.Engr. 143+96 244 Toyon-*2702*
McGarry, John Louis Chicago, Ill. LD 91+18 305 Hamilton, P-*1079*

McGee, Annele Helene Los Angeles Engl. 108·72+24 Pi Beta Phi-*1918*
A.B., Stanford, 1930
McGee, Charles Albert Ross Econ. 90·43+5 306 Sequoia-*2645*
[4]McGibbon, Edmund L. San Mateo Law gr. 335 El Portal, SM-sm
A.B., Dartmouth, 1929
[5]MacGillivray, Malcolm E. Riverside Educ. gr. 314 Tait, Los Gatos-lg
A.M., Chicago, 1921
[5]McGowan, R. Emmet San Mateo Geol. 90·39+51 *329* Union
[12]McGrath, Lawrence Philip Chicago, Ill. Econ. gr. University Hotel, P-p
B.S., Illinois 1921; A.M., Harvard, 1926; Ph.D., Stanford, 1930
McGrath, Michael W. Silver City, N.M. Span. 55·125+54 740 Guinda, P-p
A.B., Stanford, 1930
MacGregor, V. Claire Great Falls, Mont. Engl.-P.Sp. gr. Al. Omi. Pi-*1367*
A.B., Stanford, 1929
MacGregor, William Weaver Oakland LD 46–7 118 Encina-*1541*
[4]McGuire, Winona Marie Fresno Econ. gr. 359 Roble
B.S., Northwestern, 1926
McHarry, Charles Parker Salinas LD 44+35 *324* Encina-*1406*
[4]McInerney, Leonora C. San Francisco Educ. gr. 1142 Guinda, P-p
A.B., San Francisco State Teachers College, 1925
McInerny, Maureen E. San Bernardino Cl.Lit. gr. 712 Salvatierra-*2562*
A.B., Dominican, 1929
[4]McIntyre, Fanny Beckham San Diego Educ. gr. Roble
A.B., San Diego State Teachers College, 1925
McIntyre, Francis Edgar San Jose Econ.90·50+75 1131Magn'l'a,SJ-sj
[4]McIntyre, Ray Wilson San Jose Educ. gr. 438 Minor, SJ-sj
B.S., California, 1922
Mack, H. Pitts Coral Gables, Fla. Law gr. *222* Sequoia-*1556*
A.B., Stanford, 1928
MacKamey, Rhodus Palo Alto M.E. gr. 627 Waverley,P-Bx934,p
A.B., Stanford, 1928, Engineer, 1930
McKay, Hammel D'Roche Durham Eng.-P.Sp.25·108+51 Th.Chi-*1383*
[4]MacKaye, David Loring San Jose Educ. gr. 205 Union
A.B., San Jose State Teachers College, 1930
McKee, George Washington Placerville Geol. 107+33 250 Toyon-*1855*
[5]McKell, David San Francisco Pre-Med. 115–9 260 Toyon-*706*
McKellip, Robert Palo Alto Pol.S. 182+28 Phi Delta Theta
A.B., Stanford, 1930
[12]McKelvey, John Fairchild Suffern,N.Y. LD 75+15 305 Lytton, P-p
McKenney, John Paul Oakland Med. gr. *2727* 55th Ave., O-o
A.B., Stanford, 1929
[4]MacKenzie, Christine Kellogg, Idaho Pre-Nurs. ‡ Roble
McKenzie, Helen Lucille Chico Soc.S.-Jn.96·44+10 169 Roble
McKenzie, Terrell El Paso, Texas S.Engr.133·50+33 215Union-*873*
A.B., Stanford, 1930
[1]McKey, Frederic William Los Angeles LD 19+4 404 Encina
McKiernan, Charles Henry San Jose Hist. gr. 45 N. 8th, SJ-sj
A.B., Stanford, 1929, A.M., 1930
MacKinnon, Donald Stuart Long Beach Med.gr. *2325* Sacramento, SF-sf
A.B., Pomona, 1926
[12]Mackintosh, William Erwell San Diego Chem.40·143+63 845Bryant, P-*661*
A.B., Stanford, 1930
[5]McKnight, Charles Galen Fresno Law gr. *232* Union-*1342*
A.B., Stanford, 1928
[1]McLaren, Matie San Francisco Engl. 180+59 Delta Gamma-*1366*
A.B., Stanford, 1930
[1]McLaughlin, Andrew C. San Francisco LD 54–*23* Phi Kappa Psi
[14]McLaughlin, James Orr Palo Alto Educ. gr. 166 Bryant, P-p
A.B., Grove City, 1905, A.M., 1907

[1]McLean, Sinclair	Santa Rosa	LD 34–13	Kappa Alpha
[4]McLeish, Jessie	Santa Clara	Engl. gr.	1707 Liberty, SC-sc
A.B., College of the Pacific, 1924			
[1]McLeod, Norman Agnew	Los Angeles	LD 103+54	Beta Theta Pi-*1335*
McMannus, Eve Adèle	Los Angeles	LD 45+9	157 Roble-*106*
McMasters, John Herbert	Taft	Geol. gr.	538 Encina-*2391*
A.B., Stanford, 1930			
McMurray, William Tracy	San Francisco	Econ. 90·51+57	233 Branner-*970*
[23]McNamara, Austin M., Jr.	SanFrancisco	LD 28+10	*227* Encina
McNamara, Thaddeus Maria	Bakersfield	Pre-Med. 121–4	Delta Kappa Eps.
McNaught, James Bernard	San Francisco	Med. gr.	2180 Washington, SF-sf
A.B., Kansas, 1917, A.M., 1917			
McNaught, Robert C.	San Francisco	Med. gr.	*2979* Lake, SF-sf
A.B., Stanford, 1927			
MacNaughton, Boyd	Portland, Ore.	Hist. 180+171	307 Branner-*1468*
A.B., Stanford, 1930			
MacNaughton, Malcolm	Portland, Ore.	Econ. 88·48+3	Chi Psi-*1648*
McNelly, Frances Evelyn	Miami, Ariz.	Engl. gr.	Alpha Omicron Pi-*1367*
A.B., Stanford, 1928			
McNemar, Quinn	Keyser, W. Va.	Psych. gr.	2030 Waverley, P-p
A.B., Juniata, 1925			
[4]McNiel, Walter Carson	Santa Monica	LD	215 Toyon-*1334*
Macomber, Hampton George	Pasadena	LD 47·40+50	231 Encina-*854*
McOmie, Lorenzo Mark	Los Alamitos	Econ. 90·98+91	*213* Union-*1323*
A.B., Stanford, 1930			
[12]McPherson, John Clarke	Portland, Ore.	S.Engr. 127+19	Delta Kappa Eps.
[4]McPherson, Lillian Adelle	Santa Cruz	Educ. gr.	258 Roble
A.B., Washington, 1930			
[1]McQuilling, Donald William	Pasadena	LD 6·72+8	215 Sequoia-*931*
[23]McRae, Kenneth Clarence	Roseville	Pol.S. 140–7	*762* Dolores-*101*
McSweeney, Anne Challen	Los Angeles	Econ. 121+57	Pi Beta Phi-*1918*
[4]de Madariaga, Pilar	Madrid, Spain	Span. gr.	179 Roble
Madden, Sidney Clarence	Stanford Univ.	Pre-Clin.10·229+269	113Enc.-*1001*
A.B., Stanford, 1930			
Madden, Stanley J.	Fresno	LD 91+126	245 Toyon-*1001*
[1]Maddox, Ben, Jr.	Visalia	Econ. 133+64	245 Toyon-*2287*
[5]Madison, Cedric Merit	Lodi	Law gr.	347 Encina-*658*
A.B., Stanford, 1930			
[234]Madison, Ryland Randolph	San Mateo	Bact. gr.	10 9th Ave., SM-sm
A.B., Stanford, 1930			
[5]Magee, Bissell L.	San Francisco	LD 40+7	126 Encina-*1525*
Magee, J. Paul	Huntington Park	S.Engr. 108+34	Theta Xi
Magnus, Jean Eleanor	Los Angeles	LD 95+132	364 Roble-*2405*
Maguire, Fred Bell	Oakland	LD 91+87	Phi Gamma Delta
[4]Maguire, Mary Carmel	Santa Rosa	Engl. gr.	98 Bosworth, SF-sf
A.B., Ursuline, 1928			
[12]Mahoney, John Francis	Palo Alto	Geol.gr.	375LittleKingsley,P-*2585*
A.B., California, 1923			
[12]Mailer, James Clark	Santa Rosa	Econ.-Ac. 75·40–11	500 Enc.-*2731*
[4]Main, Arthur Mahlon	Hayward	Educ. gr.	98 Rockway, H-h
A.B., College of the Pacific, 1922			
Main, Margaret Aileen	San Diego	Econ.46·93+110	AlphaOm.Pi-*1367*
Makle, Albert Leonard	Palo Alto	S.Engr. 23·120+71	558 Forest, P-p
Malcolm, David Ralph, Jr.	Van Nuys	Ec.-Ac.15·165+259	246Toyon-*2144*
A.B., Stanford, 1930			
Malmquist, Gus Carl	Concord	Econ. 52·128+34	Sigma Nu-*1385*
A.B., Stanford, 1930			

[23]Malmquist, Lincoln Ragnar — Concord — Ed.-G.A. 182+138 — Sigma Nu-*1385*
A.B., Stanford, 1930
[5]Malovos, Kenneth Richard — San Jose — Law gr. — 224 S. 11th, SJ-sj
A.B., Stanford, 1930
[12]Maltby, Harry Lee — Long Beach — Hist. 187+33 — Delta Upsilon
A.B., Stanford, 1930
[1]Man, Sau — Canton, China — S.Bus. gr. — Chinese Club-*1291*
A.B., Lingnan, 1928; A.M., Stanford, 1930
Mandel, Joseph — Hollywood — Psych. 135·50+34 — 451 Encina
A.B., Stanford, 1930
Manhire, Reu Elwood — Palo Alto — Econ. 133+63 — 120 Kingsley, P-p
Mann, Harold William — Anaheim — Econ. 180+32 — Kappa Sigma-*1326*
A.B., Stanford, 1930
Manning, Dorothy — Stanford Univ. — LD 91+128 — 649 Alvarado
[4]Manning, Ethel M. — Colorado Sprgs.,Colo. — Pol.S. gr. — 440 Foothill
A.B., California, 1920; A.M., Southern California, 1926
Manning, Rhoda — Stanford Univ. — LD 44+75 — 649 Alvarado
Manning, Walter Day — San Leandro — Ec.-Ac. 205+49 — 114 Branner-*1424*
A.B., Stanford, 1930
[34]Mannino, Peter — Sacramento — Pol.S. 90·15–3 — 741 Homer, P-p
[5]Mannon, Fred Wells — Palo Alto — Pol.S. 104+22 — 627 Gilman, P-p
Mannon, Martha — Ukiah — Pre-Med.6·132+242 — Del.Gm.-*1366*
[4]Manny, Helen McCall — Oakland — Chem. gr. — 164 Roble
B.S., Knox, 1910
Manor, Arnold — Oakland — Pre-Med. 145+119 — 117 Toyon-*732*
Mansfield, Kenneth Zoellin — King City — Soc.S.-Jn. 183+140 — 144Byron,P-p
A.B., Stanford, 1930
[5]Marble, Robert Emerson — S. Pasadena — LD 29+2 — 221 Encina-*1617*
Marchant, William Harry — Vallejo — LD 94+38 — 24 Branner-*1200*
[1]Marks, Eddie Harlan — Stanford Univ. — Soc.S. 188+140 — Zeta Psi-*B*
A.B., Stanford, 1930
[5]Marks, Graham Wallace — Los Angeles — Chem. gr. — 437 Encina-*685*
A.B., Stanford, 1926, Engineer, 1927
Marks, Max — Pasco, Wash. — S.Engr. 137+38 — 214 Sequoia-*1110*
Marks, William Phillip — Burbank — Econ.104+43 — Delta Kappa Epsilon
Marple, Charles Dalliba — San Anselmo — LD 47+20 — 141 Encina
Marquis, Donald G. — Bellingham, Wash. — Psych. gr. — Sigma Nu-*1385*
A.B., Stanford, 1928
Marquis, Jean Lilian — Bellingham, Wash. — Psych. 54·88+164 — Kappa Al. Theta
Marsh, Charles Judd — Menlo Park — Psych. gr. — Perry, MP-*133*
A.B., Antioch, 1929
[4]Marsh, Willa May — Fresno — Educ. gr. — 553 Salvatierra
A.B., Fresno State College, 1926
Marshall, Francis N. — North Adams,Mass. — Law gr. — 940 Scott, P-*2711*
A.B., Stanford, 1928
Marshall, Joseph Walden — Portland, Ore. — LD 93+44 — Phi Gamma Delta
[2]Martens, Elise Henrietta — Berkeley — Educ. gr. — 200 Portola, P-*2466*
A.B., California, 1906, A.M., 1922
Martin, Daniel Jerome — Washington, D.C. — Min. gr. — 962 Boyce, P-p
Graduate, U.S. Naval Academy, 1924
[4]Martin, Erwin Samuel, Jr. — Fresno — Educ. gr. — Sealright-Box 164, s
A.B., Fresno State College, 1924
[4]Martin,HowardLouis — WichitaFalls,Tex. — Soc.S. ‡ — 747 Dolores
[5]Martin, Lois Ticknor — Stanford Univ. — Span. gr. — 770 Santa Ynez
A.B., Stanford, 1930
[4]Martin, Lydia — Santa Maria — Span. gr. — 583 Salvatierra
A.B., Baylor, 1921
[4]Marum, Pauline Gertrude — Menlo Park — Engl.gr. Conv.ScrdHeart,MP-mp
A.B., College of the Sacred Heart, 1923; A.M., Stanford, 1925

[4]Marvin, Stephen Bradbury	Riverside	LD ‡	250 Toyon-*1184*
Marvin, W. Sherwood	Riverside	S.Engr. 45·69+13	Theta Xi-*1184*
[12]Marx, Melville A.B., Stanford, 1930	San Francisco	Econ. 180+20	138 Branner-*2435*
Mason, Lawrence Oliver	Lindsay	LD 86–6	115 Branner-*2757*
Mason, Lloyd Alexander A.B., Stanford, 1928, J.D., 1930	Riverside	Law gr.	307 Union-*1472*
[3]Mason, William A. A.B., Stanford, 1929	Hollywood	M.E. gr.	552 Alvarado-*683*
Masson, Edmond Eric A.B., Stanford, 1929	San Francisco	Fr. gr.	326 Hawthorne, P-p
Matesky, Leo	Los Angeles	Engl.-P.Sp. 90·34+0	422 Enc.-*987*
Matfield, Dora Katherine A.B., Stanford, 1930	S. Pasadena	Pol.S. gr.	Pi Beta Phi-*1918*
Mather, Carl Norman A.B., Stanford, 1930	Los Angeles	Econ. 186+230	203 Sequoia-*1151*
Mathews,Benton Dunnegan	SanFrancisco	LD 45+54	336 Encina-*1648*
[1]Mathis, Gail	Fairview, Okla.	S.Engr.‡18–4	241Hawthorne,P-p
Matlock, Clifford Charles	Pasadena	LD 53·54+75	431 Encina-*2184*
[1]Matthay, F. Lowell A.B., Stanford, 1928, J.D., 1930	Los Angeles	Law gr.	310 Union-*1*
[5]Matthew, Theodore A.B., California, 1922	Berkeley	Chem. gr.	152 Melville, P-p
Matthews, George Roger A.B., Stanford, 1930	San Jose	Bact. 90·90+89	549 S. 10th, SJ-sj
[4]Matzen, Lois Evelyn A.B., California, 1925	Escondido	Geol. gr.	1437 Byron, P-p
[5]Matzinger, Philip	Monterey	Psych.102·47–6	AlphaKappaLam.
[4]Maughan, Reese P. B.S., Utah Agricultural, 1927	Logan, Utah	Educ. gr.	558 Forest, P
Maurer, Paul Bulger	Barstow	S.Engr. 132+21	238 Toyon-*2665*
Mauser, George Kern A.B., Stanford, 1930	Hollywood	Econ.180+114	AlphaTauOm.-*1384*
Mausser, Karl Henry	Burlingame	Econ. 90·42–5	Kappa Alpha
[1]Maxwell, James G.	Monrovia	LD 12·28+10	541 Stanford, M
May, Angelo Mayer, Jr.	San Francisco	LD 47+16	301 Encina-*1743*
[4]May, David II	Beverly Hills	LD	209 Union-*2577*
May, John Rickard	Berkeley	Pol.S. 132+60	Phi Kappa Sigma
Mayer, Evelyn Katherine A.B., Stanford, 1929	Rochester,N.Y.	S.Bus. gr.	176 Roble-*1526*
Mayer, Herbert Joseph A.B., Stanford, 1930	San Francisco	S.Engr. 184+247	236 Toyon
[4]Mayer, Mauricia Victoria	Redwood City	Span. ‡	Redwood City-Box 94, rc
Mayer,SandroBenzenberg A.B., Stanford, 1930	NewYork,N.Y.	Engl. 135·46+36	14 Perry,MP-*512*
[134]Mayfield, Wesley Waldo	Fallon,Nevada	Soc.S.-Jn. 91·51+9	347 Alma, P-p
[1]Mayo, Scovel Sumner A.B., State College of Washington, 1922; A.M., Stanford, 1928	Redwood City	Educ. gr.	118 Elwood, RC-rc
[4]Mays, Alfred S.	Sausalito	Pre-Med. 90·26–13	335 Union
[3]Meachem,MalcolmRich	Salt LakeCity,U.	Engl.-P.Sp. 116·	416 Encina-*1492*
[12]Mead, Amos Ross A.B., Stanford, 1930	Turlock	M.E. 5·207+105	402 Sequoia
Meade, Reginald Eson	Arcata	LD 40+0	140 Encina-*687*
Meadowcroft,NielFairhurst A.B., Stanford, 1930	Stnfrd Univ.	C.E. gr.	314 Sequoia-*1134*
Meadows, Roy Eduardo, Jr.	Monterey	LD 45+26	19 Encina-*851*
Mearns, William	Victoria, B.C.	LD 82+12	258 Toyon-*2665*

Mears, James Blythe	Los Angeles	Econ. 138+71	Beta Theta Pi-*1335*
Mechem, Onice Eugene A.B., Stanford, 1930	Stanford Univ.	S.Engr. 84·115+135	409 Squa-*1911*
Medau, John Edward	San Mateo	Econ. 147+85	Phi Gamma Delta
Melgaard, Thomas Lee	Oakland	Econ. 142+19	Phi Kappa Sigma
Mellinkoff, Abe Irving	Beverly Hills	LD 46·46+90	344 Encina-*1944*
[23]Melone, Woodward	Napa	LD 32+17	430 Encina
[4]Mendell, Wilbert Thornton	Oakland	LD	222 Toyon
[23]Mendelson, Joseph Bernard	SanFrancisco	LD 30+19	410 Encina
Mendenhall, Ernest Dunlap, Jr.	Piedmont	LD 93+31	Beta Theta Pi-*1335*
[5]Meng, Tai Chuang	Hopei, China	Educ. 90·48+39	520 Slvtra-*2556*
[4]Mercado, Kate Salisbury	San Francisco	Engl.‡29+39	271 Roble
[5]Mercado, Louis R. A.B., Stanford, 1929	San Francisco	Law gr.	512 Encina-*2277*
[4]Merenbach, Simon E. B.S., Nevada, 1920, Engineer, 1929	San Francisco	Geol. gr.	908 Boyce, P-p
Meriam, Theodore	Chico	Econ. 90·49+12	408 Sequoia-*964*
Mermod, Camille A.B., Mills, 1922	Winters	Med. gr.	1678 Sacramento, SF-sf
Mermod, Léon Emile A.B., Stanford, 1928	Winters	Med. gr.	2321 Sacramento, SF-sf
Merner, Benetta Delight A.B., Stanford, 1930	Hillsborough	Hist.180+105	KappaKappaGamma
Merner, Ward Pfeiffer A.B., Stanford, 1930	Hillsborough	Cl.Lit. gr.	Kingscote
[12]Merrill, Ambrose P., Jr.	Ogden, Utah	Pre-Md.90·30+9	851Lytton,P-*1404*
[5]Merrill, Ray Stoddard B.S., Utah Agricultural, 1924	Richmond, Utah	Educ. gr.	420 Florence, P-p
[4]Merrithew, Wallace Kriner	Martinez	LD	226 Union
Mesenburg, John Lee	Palo Alto	S.Engr. 89·45+2	1036 High, P-p
[4]Mespelt, Opal	Scio, Ore.	LD ‡	PA-RFD, Box 4C, p
[23]Messimer, William Gilbert	Los Angeles	LD 48·30+21	450 Encina-*2661*
Metz, Doan Elvan	Monterey	S.Engr. 138+141	441 Foothill-*852*
Meyer, George A.B., California, 1927, A.M., 1928	San Francisco	Psych. gr.	545 Bryant, P-p
Meyer, Hugo Bardill	Palo Alto	LD 90+102	2060 Bryant, P-p
Meyer, Robert Wiepking	Palo Alto	LD 96+137	121 Waverley, P-p
Meyer, Ruth Robinson A.B., Stanford, 1930	Palo Alto	Phys.S. 15·194+321	121Wvly.,P-p
Michaels, Henry A.B., Stanford, 1930	Atherton	Econ. 185+53	Phi Kappa Sigma
Michelson, Carroll Edward	SanFrancisco	Pol.S. 90·51–4	320 Sequoia-*1025*
Mickelson, Vernon Clifford	Sebastopol	Engl. 90·44+47	532 Encina-*2667*
Mickle, Charles Wesley	Phoenix, Ariz.	LD 42+1	403 Encina-*1661*
Mielke, Albert John A.B., Stanford, 1930	Menlo Park	Econ.-Acct. 181+49	MP-Bx 275, p
[12]Miksch, Walter P. A.B., Linfield, 1926; A.M., Stanford, 1930	Portland, Ore.	Fr. gr.	270 Kellogg, P-p
Miles, Thomas Kirk	Stanford Univ.	S.Engr. 143+127	607 Gerona
Millar, Glenn Emmet A.B., Stanford, 1930	Reno, Nevada	Bact. 92·92+40	943 Bryant, P-*944*
[14]Miller, Albert George	Whittier	Pre-Med. 96+2	1056 Webster, P-p
[12]Miller, Arthur Capps A.B., Stanford, 1928, J.D., 1930	Arcadia	Law gr.	575 Embarcadero, P-*1554*
[5]Miller, Arthur George A.B., Stanford, 1927	Whittier	Law gr.	1056 Webster, P-p
Miller, Arthur Leland	Half Moon Bay	Hist. 90·41–2	109 Sequoia

[4]Miller, Edith Page A.B., Linfield, 1925	Hillsboro, Ore.	Cl.Lit. gr.	Madroño
[12]Miller, Elmer A.B., Stanford, 1914	Provo, Utah	Econ. gr.	934 Webster, P-p
[4]Miller, Frank Myron A.B., Pennsylvania State, 1927	Jamestown, Pa.	Educ. gr.	301 Union-*1177*
Miller, George Bernard	San Francisco	Pre-Med. 137+110	317 Seq.-*2672*
Miller, Henry Clay, Jr. A.B., Stanford, 1930	Atherton	Econ. 180+59	Theta Del. Chi-*1828*
[23]Miller, Hugh Brazel	San Francisco	LD 30+22	120 Encina
[1]Miller, Jack Stadden	Los Angeles	S.Engr. 88·64+18	563 Encina-*1269*
Miller, Mervin Thomas A.B., Stanford, 1930	San Rafael	S.Engr. 90·93+16	PhiKappaSigma
Miller, Miriam A.B., Stanford, 1930	Porterville	Phyl. gr.	363 Roble-*2345*
Miller, Norman William	Menlo Park	LD 41+8	123 Encina-*971*
[1]Miller, Ream Victor A.B., Stanford, 1930	Riverside	Ec.-Ac. 186+175	Phi Sig. Kp.-*538*
Miller, Richard Crump	Los Angeles	LD 43+0	46 Encina
Miller, Robert Lincoln A.B., Stanford, 1928	San Mateo	Law gr.	509 Highland, SM-sm
Miller, Willard Aldrich	Los Angeles	LD 82+11	Theta Chi-*1383*
[234]Milligan, Kenneth M.	Long Beach	Econ. 135+41	Kappa Sigma-*1326*
[1]Milligan, Robert Franklin	San Francisco	LD 88+12	Phi Gamma Delta
Milliken, Donald Booth B.S., California Institute of Technology, 1929	Pasadena	S.Bus. gr.	525 Lytton, P-p
[4]Milliken, Margaret F. A.B., Vassar, 1922	Menlo Heights	Econ. gr.	Perry, MH-*2653*
[4]Millikin, Bruce E. B.S., Columbia, 1910	Salt Lake City, Utah	Educ. gr.	1014 Forest Ct., P-p
Mills, Nelson Merrell	San Francisco	Pol.S. 137+89	Zeta Psi-*B*
Milne, Stanley Arthur A.B., Stanford, 1930	Pasadena	Soc.S.-Jn. 181+75	Theta Xi-*100*
Miner, Ruth Lenore	Hollywood	LD 92+130	251 Roble-*2677*
Minton, Owens	Mountain View	LD 58+23	250 Encina-*2242*
Mires, Gene	Palo Alto	LD 48+24	327 Encina
Mires, Vincent Hall A.B., Stanford, 1930	Palo Alto	Econ. 181+62	252 Everett, P-p
[23]Misumi, Ichiro	San Francisco	LD 42+30	Japanese Club-*598*
Misumi, Issei A.B., McPherson, 1927	Fukuoka-ken, Japan	Psych. gr.	Madroño-*2728*
[4]Mitchell, Ethel Dresia S. B.S., Kansas State Agricultural, 1916	Palo Alto	Soc.S.-Jn. gr.	127 Coleridge, P-p
[4]Mitchell, Evelyn Dent A.B., Stanford, 1929	Oakland	Educ. gr.	Roble-*1083*
Mitchell, Hewitt Frenyear A.B., Stanford, 1930	Fresno	S.Engr. 5·188+176	310 Seq'ia-*1263*
Mitchell, John Waldo	Palo Alto	S.Engr. 137+71	Zeta Psi-*B*
[4]Mitchell, Pearl Beattie A.B., California at Los Angeles, 1930	Santa Monica	Engl. gr.	1966 Cowper,P-Bx109,p
[234]Mitchell, Roy Fred	Grass Valley	Educ. 135+46	536 Encina-*1784*
Mitchell, Sidney Pearce	Palo Alto	LD 42+12	224 Encina-*2454*
[34]Mittauer, George T.	San Francisco	LD 52–10	238 Branner-*1544*
[4]Moe, Chesney Rudolph A.B., Stanford, 1929	Chula Vista	Phys. gr.	207 Union-*1037*
Moffatt,PhilipJulian	OklahomaCity,Okla.	Econ. 131+23	DeltaKappaEpsilon
Moffitt, Albert Hubbard, Jr. A.B., Stanford, 1929	Oakland	Law gr.	Kappa Sigma-*1326*

[3]Moffitt, Albert Rohloff	Palo Alto	S.Engr. 105·6–6	411 College, M-m
[12]Molony, Mary Deming	Palo Alto	LD 36·61–18	279 Roble-*1915*
[2]Moment, Samuel	Oak Park	Psych. 132·5+5	Kingscote
Moncrief, David Melville	Honolulu,T.H.	LD 89+48	Phi Sigma Kappa-*538*
[4]Moneyhun, Frank Otis	Palo Alto	LD	1111 Greenwood, P-p
[234]Monk, John Clarkson	San Francisco	LD 25–9	410 Encina-*1117*
[5]Monroe, Charles Mattison	Palo Alto	Econ. 90·55–11	637 Cowper, P-p
[23]Monsalve, Carlos Antonio	San Francisco	LD 30+10	120 Encina
Monson, Brigham Cyril	Richmond, Utah	S.Bus. gr.	353 Lytton, P-p
B.S., Utah Agricultural, 1927			
Montana, Eduardo F.	Romblon, P.I.	Educ. gr.	705 Cowper, P-p
B.S., Silliman Institute, 1924			
Montgomery, Clifton Reynolds	Lodi	Law gr.	Beta Theta Pi-*1335*
A.B., Stanford, 1928, J.D., 1930			
[4]Montgomery, Cora May	Palo Alto	Educ. gr.	556 Lytton, P-p
A.B., Stanford, 1928			
[4]Montgomery, Franz J.	Corvallis, Ore.	Engl. gr.	Hotel President, P-p
A.B., Indiana, 1927, A.M., 1928			
[4]Montgomery, Hugh	San Mateo	LD	609 Fordham, SM-sm
Montgomery, James W.	Longmont, Colo.	Engl. 90·48+14	425 Encina-*2423*
[5]Montgomery, John Warren	Talmage	Law gr.	540 Encina-*955*
A.B., Stanford, 1930			
[1]Moody, Warren G.	Fresno	Econ. gr.	426 Encina-*1468*
A.B., Stanford, 1924, A.M., 1930			
[1]Moomaw, Chester Carl	Wilmington	Econ. 180+35	Delta Tau Del.-*1363*
A.B., Stanford, 1930			
[4]Mooney, Charles Neil	San Francisco	LD 13+5	118 Toyon
Moore, Allan Arthur	San Anselmo	Econ.90·49+0	PhiSigmaKappa-*538*
Moore, George Eugene	Lodi	Econ. 182+72	Alpha Delta Phi-*J*
A.B., Stanford, 1930			
[4]Moore, Helen Woodmansee	Long Beach	LD‡17+22	222 Roble-*1452*
Moore, Howard Hoffman	Honolulu, T.H.	Econ.-Acct.143+72	137Branner-*27*
[3]Moore, Howard Patrick	Zamboanga, P.I.	LD 94–3	Kappa Sigma-*1326*
Moore, Jack Kuehn	Los Angeles	Med. gr.	2480 Washington, SF-sf
A.B., Stanford, 1928			
Moore, Joseph A., Jr.	San Francisco	S.Bus. gr.	213 Branner-*1099*
B.S., California, 1929			
Moore, Louis Charles	Vacaville	LD 92+98	Alpha Sigma Phi-*1357*
[124]Moore,LutherFranklin,Jr.	SnfordUniv.	Pol.S. gr.	202 Sequoia-*526*
A.B., Stanford, 1929			
[4]Moore, Marguerite	San Jose	Hist. gr.	955 Plaza Dr., SJ-sj
A.B., Stanford, 1918			
[4]Moore, Myron William	Palo Alto	LD ‡	443 Kipling, P-p
[5]Moore, Ralph James	Sacramento	Econ. 90·50+61	316 Sequoia-*652*
Moore, Richard William	Los Angeles	Pre-Med. 140+56	Delta Chi-*1304*
Moore, Robert London	Los Angeles	LD 43+49	221 Encina-*1833*
Moore, William Groff	Redlands	Econ.93·42+24	327 Emrsn, P-*2129*
[12]Morbeck, Dorothy Jane	Kingston, Idaho	LD 73+31	219 Roble-*623*
Morehouse, Merrill W.	Hollywood	LD 81+15	Delta Tau Delta-*1363*
[12]Moreland, James Cooper	Portland, Ore.	Econ. 90·32–18	416 Encina-*26*
[4]Moreland, Wilber Hugh	San Jose	Phys. gr.	835 Waverley, P-p
B.S., Louisiana, 1926; M.S., Battle Creek, 1928			
Morello, Joseph John	Saratoga	S.Engr.129·44+3	Saratoga-Bx48,s
[5]Morf, F. William, Jr.	Barrington, Ill.	Econ. 5·159+81	125 Branner-*966*
Morgan, Donald Arol	Aberdeen, Wash.	Chem. 99·91+35	423 Encina-*1605*
A.B., Stanford, 1930			
Morgan, Donald Paul	Pomona	LD 42+9	245 Encina-*1031*

[12]Morgan, Edwin Henry	Roseville	Chem. 90-86+13 257 Everett, P-p
Morgan, James William	Corning	Pol.S. 90-77+59 151 Cowper, P-p
Morgan, John Talbert	Birmingham, Ala.	S.Engr. 135-36–4 Phi Kappa Sig.
Morgan,LucileFrances	Youngstown,Ohio	LD 91+33 Alpha Omicron Pi-*1367*
[4]Morgan, Roberta Mary	Arlington, Mass.	LD ‡ 614 Alvarado
[4]Mork, Donald James	San Jose	Econ. gr. 327 E. San Carlos, SJ-sj
A.B., College of the Pacific, 1921		
Morony, Gregory Sears	Chico	S.Engr. 106-46+5 108 Sequoia-*897*
[5]Morosoli, Sabina Katherine	St. Helena	Span. gr. 372 Roble-*2117*
A.B., Mills, 1929		
Morris, Alexander Bogy	Hollywood	Econ. 181+82 216 Toyon-*2488*
A.B., Stanford, 1930		
Morris, Bernard	Burlingame	Hist. 90-90+18 502 Encina
A.B., Stanford, 1930		
Morris, Charles Shoemaker, Jr.	Modesto	Econ. 90-47+0 501 Encina
Morris, Mary-Katherine	Fallon, Nevada	LD 45+31 Roble-*2351*
[1]Morris, Willard H.	Palo Alto	Hist. gr. 421 Kipling, P
A.B., Michigan State Normal, 1926		
[4]Morrison, Alan Fraser	San Francisco	LD 226 Union
[5]Morrison, Allan Ross	Eureka	Law gr. 536 Alvarado
A.B., Stanford, 1929		
[4]Morrison, Catherine D.	San Francisco	Educ. 126-39+29 Roble
Morrison, Dale Angus	Santa Clara	Econ.90-94+107 1160Mnroe,SC-sc
A.B., Stanford, 1930		
Morrison, Dean	Seattle, Wash.	Econ. 180+63 Theta Chi-*1383*
A.B., Stanford, 1930		
[23]Morrison, Harry Clifford	Los Angeles	LD 79+20 132 Toyon-*2674*
Morrison, John Blair	Burlingame	Econ.-Acct.182+124 334 Enc.-*2668*
A.B., Stanford, 1930		
Morrow, Robert Ewing	Los Angeles	Econ. 132+11 659 Salvatierra
Morrow, Thomas H.T.	S. Tacoma, Wash.	LD 94+119 541 San Juan-*1148*
Morrow, William C.	S. Tacoma, Wash.	LD 86+37 541 San Juan-*1148*
Morse, Catherine E.	Bellingham, Wash.	LD 88-42+13 375 Roble-*2255*
[12]Morse, Cecily	Menlo Heights	Fr. 15-165+163 MenloHeights-*840*
A.B., Stanford, 1930		
[5]Morse, E. Constance	Menlo Heights	Soc.S. 29-91+74 Pi Beta Phi-*840*
[234]Morse, Stanley W.	Palo Alto	Chem. gr. 215 Cowper, P-p
A.B., Hanover, 1920		
[234]Morse, William Russell	Stanford Univ.	Engl. gr. 535 Salvatierra-*1051*
A.B., Harvard, 1876, A.M., 1910, Ph.D., 1914		
[2]Morthland, Andrew	Los Angeles	LD‡14+3 120 Encina
[4]Morthland, Lottie May	San Jose	Educ. gr. 540 S. 8th, SJ-sj
A.B., San Jose State Teachers College, 1930		
Morton, Harry Sankey	Manila, P.I.	Econ. 132+9 Kappa Sigma-*1326*
[4]Moseley, Glen Harrison	Mariposa	Educ. gr. Kingscote
B.S., Nebraska, 1917		
[4]Moseley, John Ohleyer	Norman, Okla.	Cl.Lit.gr. SigmaAlphaEpsil'n-*141*
A.B., Austin, 1912; A.M., Oklahoma, 1916		
[5]Moser, Henry	Stanford Univ.	Zoöl. 12-94+39 441 Foothill Rd.
Mossman, Ralph Westbrook	Antioch	M.E. gr. 1033 Guinda, P-p
A.B., Stanford, 1928, Engineer, 1930		
Mothershead, John Leland, Jr.	Pasadena	Phil. gr. 601 Webster, P-p
A.B., Stanford, 1930		
[4]Mott, George F., Jr.	San Diego	Pol.S. gr. 521 Lasuen-*688*
A.B., Stanford, 1929		
Mott, Olive	Burlingame	LD 46-44+52 357 Roble-*85*
Motz, Leslie Leland	Bisbee, Ariz.	LD 91+15 570 University, P-p

[5]Moulton, Florence Ellen — Menlo Park — Hist.gr. — Sac.Hrt.Convent,MP-mp
A.B., College of the Sacred Heart, 1922; A.M., Stanford, 1923

[1]Movitt, Eli Rodin — Los Angeles — Pre-Cl.135·16+14 — 445Ham'ton,P-p

Movius, Arthur James — Billings, Mont. — LD 44+41 — 44 Encina-*989*

[12]Moy, Herbert Bing — Palo Alto — S.Biol. gr. — 538 Cowper, P-p
A.B., Stanford, 1927

Mueller, Gustave A. — Del Mar — Law gr. — Phi Kappa Sigma
A.B., Stanford, 1929, J.D., 1930

Mujica, Wilfred — Cuzco, Peru — S.Engr.136+184 — 420 Rmna,P-*1297*

Mulford, Raymon Howard — Palo Alto — Econ. 139+151 — PA-RFD 35, p

Muller, Adolph Martin — San Francisco — LD 28·53+8 — *229* Encina-*2004*

[1]Muller, Donald Fletcher — San Francisco — Econ. 180+81 — Kingscote-1357
A.B., Stanford, 1930

[4]Mullin, Florence Marie — Palo Alto — LD ‡ — 531 Center, P-p

Mullin, J. Stanley — Los Angeles — Econ. 181+160 — Alpha Delta Phi-*J*
A.B., Stanford, 1930

Mulvane, Raymond Leon — San Dimas — LD 89+48 — 28 Branner-*1268*

[12]Mulvey, Anthony H. — San Diego — S.Engr. 5·178+137 — 131 Brnr.-*2757*
A.B., Stanford, 1930

Mundt, Kenneth Francis — Folsom City — C.E. gr. — 405 Sequoia-*631*
A.B., Stanford, 1929

Munson, Floyd Emery — Azusa — Chem. 90·91+8 — *224* Union-*1654*
A.B., Stanford, 1930

Munson, Merrill Crow — Modesto — Econ. 90·48+28 — *522* Encina-*1635*

[4]Murdock, Glenn Evert — Redlands — Zoöl. gr. — 521 Lasuen-*2576*
A.B., Redlands, 1928

Murphy, John Cornelius — New York, N.Y. — Pre-Med. 117+59 — 138 Toyon-*2668*

[12]Murphy, Paul Fuller — Portland, Ore. — Hist. 180+5 — Chi Psi-*1648*
A.B., Stanford, 1930

[5]Murphy, Thomas Gabriel — Los Angeles — Econ. 166+34 — Beta Theta Pi-*1335*

Murray, Howard Andrew — Butte, Mont. — LD 41–2 — 116 Encina-*1714*

Murray,Margaret Elizabeth — SantaMonica — Psych. gr. — 565 Salvatierra-*2804*
A.B., Mt. Holvoke, 1929

[1]Murray, Paul Wendle — Santa Cruz — Econ. 90·55–10 — 315 Everett, P-p

Murray, Phillips Logan — Los Angeles — LD 43+16 — 207 Encina-*2101*

[5]Musante, Catherine A. — San Francisco — Span. 114+83 — *236* Roble-*2055*

Musgrove, Jacob DeKalb, Jr. — Woodland — LD 84+23 — Sigma Chi-*628*

Mushlitz, Manford Eugene — Lewiston, Ida. — Educ. gr. — 117 Kellogg, P-p
B.S., Idaho, 1924; A.M., Stanford, 1930

[234]Musick, Lewis Willis — Newark — S.Biol. gr. — *723* Santa Ynez
A.B., Stanford, 1929, A.M., 1929

[12]Mustain, Marshall Galucia — El Paso, Tex. — Chem. 120·94+53 — 349Hmltn.,P-*892*
A.B., Stanford, 1930

[4]Muzzall, Ernest L. — Ritzville, Wash. — Educ. gr. — 521 Lasuen–*2435*
A.B., Washington State, 1923

[5]Myers, George Sprague — Palo Alto — Zoöl. gr. — 733 Homer, P-p
A.B., Stanford, 1930

Myers, John Wescott — Los Angeles — LD 41+38 — 223 Encina-*2031*

[4]Myers, Mabel A. — Glendale — Engl. gr. — 1245 Webster, P-p
A.B., Iowa, 1921

Myers, Robert Leland — Portland, Ore. — LD 92+72 — 132 Branner

Mynard, Robert Henry — Oakland — LD 59+74 — 403 Encina-*562*

[12]Nabil, Marzieh Khanom — Los Angeles — Engl. 94·86+130 — 1860 Turk, SF
A.B., Stanford, 1930

Naff, Clarence Raymond, Jr. — Hollywood — Soc.S. 11·174+71 — 235 Branner-*84*
A.B., Stanford, 1930

[1]Nakano, Kunihiko — Tokio, Japan — S.Engr. 90·45–24 — Jap'se Club-*598*

Nakayama, Masura Kobe, Japan LD 47+11 235 Portola, P-*2633*
[5]Napier, John Hawkins, Jr. Emeryville Educ. gr. 1033 43rd, E-e
B.S., Mississippi A. and M. College, 1920; A.M., California, 1925
Narbutovskih, Paul M. San Francisco E.E. gr. 1431 Waverley, P
A.B., Stanford, 1929
Nash, Hammond Goodrich Altadena LD 74–3 Kappa Sigma-*1326*
[4]Nash, Lulu Mason Sandpoint, Idaho Hist. gr. 660 Salvatierra-*864*
A.B., Washington State, 1922
Nash, Paul Dudley Palo Alto LD 91+73 352 Middlefield, P-p
Naylon, George E., Jr. BrentwoodHeights LD 47+41 111 Encina-*1704*
[4]Naylor, Sarah Rhoda San Diego Engl. gr. 119 Roble
A.B., Kansas, 1912
Neale, Roderick Malcolm San Mateo LD 100+94 228 Sequoia
Nealley, Willis Grafton S. Berwick, Me. Pol.S. gr. 319 Union-*50*
A.B., Maine, 1929; A.M., Stanford, 1930
[12]Neff, Alice Lee Palo Alto LD 61+36 131 Cowper, P-p
Neff, Edith Laura Palo Alto LD 45+2 209 Roble
[13]Neff, Harold Arthur Palo Alto Econ. gr. 1151 Middlefield, P-p
A.B., Stanford, 1926
[4]Neideffer, Raymond Thomas Sanger Educ. gr. 251 Hawthorne, P-p
A.B., Fresno State College, 1930
Neikirk, William Thom Palo Alto S.Engr. 135+82 1357 Cowper, P-p
[4]Neil, Gertrude Helen San Francisco Ed.-G.A. 132·35+55 262 Roble
Neill, Phil S. Santa Monica Econ. 42·87+40 Delta Kappa Eps.
[5]Nelson, Arnold Harvey Colma Law gr. 1414 Paloma, Burlngm-b
A.B., Stanford, 1925
[4]Nelson, Clarence William Sanger Phys. gr. 935 Ramona, P-p
B.S., California, 1924
[1]Nelson, Clifford Adolph San Francisco S.Biol. 32·148+52 243 Salvatierra
A.B., Stanford, 1930
[23]Nelson, Donald Sheets Arbuckle Econ. 202+115 Phi Kappa Psi
A.B., Stanford, 1930
Nelson, Edward Gene Spokane, Wash. Econ. gr. 838 Cowper, P-*622*
B.S., Southern California, 1926, A.M., 1928
[4]Nelson, Lyle Allen Watertown, S.D. Phys.Ed. gr. 557 Lasuen-*1335*
A.B., Dakota Wesleyan, 1926
[4]Nelson, Mary Bertina Woodland Educ. gr. 253 Roble
B.S., Kansas State Teachers College, 1921
Nelson, Robert Edmund Pasadena S.Engr. 137+132 305 Sequoia-*1072*
Nelson, Ruth H. Kansas City, Mo. LD 84+4 Kappa Alpha Theta
Nelson, Walter Andrew Long Beach S.Bus. gr. 536 Alvarado
A.B., Stanford, 1929
Newbauer, Lewis Richard Sacramento Engl.-P.Sp.90·34–13 405Seq.-*2116*
Newbegin, John James San Francisco LD 59+32 202 Toyon-*1115*
[4]Newby, William W. Salt Lake City, Utah Zoöl. gr. Pacific Grove-pg
A.B., Kansas, 1926; M.S., Iowa State, 1927
Newcomb, Walter Martin Palo Alto LD 88+45 2027 Emerson, P-p
Newcomer, Margaret H. Los Angeles LD 91+117 Kappa Alpha Theta
[5]Newell, Joseph Carroll Palo Alto Econ. 22·103+9 BetaThetaPi-*1335*
[2]Newkirk, Katharine Andrus Palo Alto Pol.S. gr. 356 Addison, P-*1983*
A.B., Pomona, 1923; A.M., Stanford, 1928
[4]Newlove, Marlin E. Santa Cruz Geol. 137+57 Ventura-v
Newman, Henry Wise San Francisco Med. gr. 3135 Pacific, SF-sf
A.B., Stanford, 1927
Newman, Robert Wilson Ogden, Utah Med. gr. 2275 Jackson, SF-sf
A.B., Stanford, 1928
Newman, William Jesse San Francisco LD 47+73 322 Encina-*1614*

[23]Nicholls, Freeman A. Berkeley Econ. 90-31–19 583 Salvatierra
[24]Nichols, Ambrose Reuben San Jose Educ. gr. 402 S. 14th, SJ-sj
B.S., Upper Iowa, 1902
Nichols, Clare Woodward Shanghai, China LD 45+48 1019 Bryant, P-p
[4]Nichols, Everett Oscar Plainview, Tex. LD 142 Toyon
[5]Nichols, Gaylord E. Berkeley Geol. 135-43+15 210 Union
Nichols, Harry A., Jr. San Francisco S.Engr. 148-132 Theta Xi
[14]Nichols, James Ross Bakersfield Geol. 139–11 551 Hanover, M
[4]Nichols, Madaline Wallis San Rafael Span. gr. 210 Roble-*1875*
A.B., Mt. Holyoke, 1918; A.M., Cornell, 1922
Nichols, Robert McC., Jr. San Francisco LD 103+53 251 Toyon-*1033*
Nichols, William Ford Shanghai, China Hist. 136+115 1019 Bryant, P-*1304*
[5]Nicholson, Robert L. Twin Falls, Idaho Educ. gr. 426 Encina-*1482*
A.B., Linfield, 1928
Nicol, Allen Hankins Coronado Educ. 94-97+65 334 Union-*654*
A.B., Stanford, 1930
Niederauer, Philip Allen San Jose Econ. 90-47+15 140 Branner-*525*
Nielsen, Russell Anton Portland, Ore. LD 47+71 432 Encina-*1533*
[1]Nielson, Leo Haight Burley, Idaho LD 67- 39 Encina-*1861*
Niendorff, Arthur Starr Dallas, Tex. Phil. 111-37+21 963 Lincoln, P-p
Nikirk, Jane San Francisco LD 93+110 AlphaOmicronPi-*1367*
[4]Nimmo, Francis Vere Pasadena Pol.S. gr. 332 Forest, P-p
A.B., Southern California, 1930
Nisbet, Alfred Waters Los Angeles Psych. 133+25 Del.TauDelta-*1363*
[3]Nishihashi, Keizo Mayfield S.Engr. 90-76–3 472Shn, M-B771, m
[1]Nitchy, Fred A., Jr. Portland, Ore. S.Engr. 98–16 Theta Chi-*1383*
Noack, Jeannette Snyder San Jose Psych. 182+197 Kingscote
A.B., Stanford, 1930
[23]Noack, Leland Alfred Oakland Econ. 108-33–17 218 Sequoia-*1144*
[4]Noble, Phyllis Marion San Jose Hist. ‡ 322 Roble
[23]Noble, Susan San Francisco LD 19-29+28 154 Roble
[12]Noble, William Roberts Sacramento LD 70–33 Theta Delta Chi-*1828*
Nobs, Benita Edith Grass Valley Ed.-G.A. 136+92 308 Roble-*2552*
[4]Noll, Martha Lenore San Jose Econ. ‡ 320 Roble
Nollen, Emeline Bartlett Grinnell, Ia. Phil. 91-46+80 277 Roble-*2236*
Norberg, N. Gunnar Little Falls, Minn. Econ. 151–7 213 Union-*1851*
Norberg, Ray William Los Angeles Med. gr. 2321 Sacramento, SF-sf
A.B., Stanford, 1925, A.M., 1927
[23]Norman, Lewis Arthur, Jr. Santa Ana LD 84+87 231 Branner-*1674*
[2]Norman, Marian Toll San Diego Econ. gr. 641 Gilman, P-p
A.B., Stanford, 1926
Norris, Frank Palo Alto LD 80+2 Chi Psi-*1648*
Norris, Nilan Elmer Palo Alto Econ. 90-93+155 18 Branner
A.B., Stanford, 1930
Norris, Wilbur James Palo Alto Econ. 90-46+4 117 Tennyson, P-p
North, Edmund Hall Hollywood LD 72–19 520 Oregon, P-*1353*
Northcote, Oliver S. Brentwood Heights Law gr. 528 Encina-*807*
A.B., Stanford, 1929
[1]Northrop, Robert Starr, Jr. Napa Econ. 184+197 Sig. Al. Eps.-*1674*
A.B., Stanford, 1930
Northway, Fred James Hughson Soc.S. 5-189+233 347 Encina-*2665*
A.B., Stanford, 1930
Norvell, Oliver Wendell Ima, N.M. S.Biol. 90-103+8 499A Governor's
A.B., Stanford, 1930
[4]Notter, Harley Arthur ForestGrove, Ore. Hist. gr. 257 Hawthorne, P-p
A.B., Puget Sound, 1925; A.M., Stanford, 1927

[4]Notter, Margaret T. A.B., Pacific University, 1930	Forest Grove, Ore.	Educ. gr.	257 Hawthorne, P-p
Nourse, Elisabeth	Palo Alto	LD 90+52	Gamma Phi Beta-*1337*
Nourse, Joan	San Francisco	Engl.136+63	KappaKappaGamma
[23]Nourse, John Lincoln	Palo Alto	Pol.S. 141+167	Sigma Chi-*628*
[5]Nugent, Donald Ross A.B., Stanford, 1930	San Jose	Educ. gr.	Phi Sigma Kappa-*513*
Nunan, Kneeland	S. Pasadena	LD 43·47+16	692 Mirada
Nunes, James Manuel A.B., Stanford, 1930	Niles	Econ. 181+113	534 Encina-*1082*
Nute, James C.	Palo Alto	Soc.S. 43·70+37	771Hamilton,P-p
Nute, J. Warren A.B., Stanford, 1930	Palo Alto	C.E. gr.	771 Hamilton, P-p
Nutt, Jack A.B., Stanford, 1930	Los Angeles	Soc.S. 183+75	Theta Xi
[23]Nutt, Joseph R., Jr.	Cleveland, Ohio	LD 45·34+36	26 Kingscote
[23]Nutt, Sarah East	Cleveland, Ohio	Engl. 96·34+63	26 Kingscote
Nye, H. Safford A.B., Stanford, 1930	Alhambra	Econ. 181+136	Sigma Chi-*628*
[13]Nye, Irvine H. A.B., Stanford, 1930	Alhambra	Econ. 42·172+11	Sigma Chi-*628*
[1]Nyeland, Aksel	San Mateo	LD 14+0	122 Encina
[12]Oatman, Jack Lawrence	San Diego	LD 41·44+13	137 Encina-*1011*
[124]Oberson, Louis Edward A.B., Willamette, 1928; A.M., Stanford, 1930	Mabton, Wash.	Educ. gr.	301 Union-*132*
O'Brien, Bickford Clarence A.B., Stanford, 1930	Los Angeles	Ed.-G.A. 87·93+39	Theta Xi
[5]O'Brien, Charles Thomas	Sacramento	Pol.S. 90·80+40	436Waverley,P-p
[23]O'Brien, Francis J.	Stockton	LD 51·26+7	234 Encina-*884*
O'Brien, George Francis A.B., Stanford, 1929	Sacramento	Med. gr.	1328 Shrader, SF-sf
O'Brien, Richard Joseph	San Francisco	Econ.4·173–*22*	AlphaSig.Phi-*1357*
O'Connell, Thomas Francis A.B., Stanford, 1930	San Diego	Pre-Cl.90·94+58	543Byron,P-*1384*
O'Connor, Aileen Margaret	SanFrancisco	LD 46+61	147 Roble-*2183*
O'Connor, Margaret E.	Long Beach	Pol.S. 90·43+47	259 Roble-*2673*
[4]O'Connor, Mary Gabriel A.B., Ursuline, 1930	Santa Rosa	Hist. gr.	98 Bosworth, SF-sf
[4]O'Connor, Pauline Marie	San Francisco	Hist. ‡	Roble
Odale, Oscar Lehman	Lemoore	S.Engr. 91·46+3	177 Everett,P-p
[5]Oddie, Richard Meigs	San Francisco	LD 16·72+7	Chi Psi-*1648*
Odell, Cary Elliott	Beverly Hills	LD 72+22	Phi Sigma Kappa-*538*
O'Donnell, Edward Sheridan	Los Angeles	S.Engr. 154+6	Phi Gamma Delta
O'Donnell, John Francis A.B., California, 1924	Portland, Ore.	Law gr.	159 Emerson, P-p
[224]Oeschger, Joseph Carl	Palo Alto	Educ. 116·64+9	724 Bryant, P-p
Off, Charles Frederick, Jr.	Hollywood	Econ. 121+17	Theta Xi
[5]Ogden, George Lee A.B., Nebraska Wesleyan, 1917; A.M., Stanford, 1930	Republican City, Neb.	Educ. gr.	436 Stanford, M-*691*
Ogg, Richard Andrew, Jr. A.B., Stanford, 1929, A.M., 1930	Palo Alto	Chem. gr.	369 Forest, P-p
[4]Ogier, Elgie Catharine A.B., San Jose State Teachers College, 1930	San Jose	Educ. gr.	52 S. 11th, SJ-sj
Ogier, Florence Lee A.B., Stanford, 1930	San Jose	Pol.S. 43·138+17	Chi Omega
[2]Ogle, Marbury Bladen	Columbus, Ohio	Phys. 110·0–15	Theta Xi-*1211*
[4]Ogren, Carl Malkus B.S., North Dakota Agricultural, 1927	Kulm, N.D.	Educ. gr.	557 Lasuen-*1335*

Ohnhaus, Anne	Cheyenne, Wyo.	Econ. 90·43+30	170 Roble-*1832*
Oishi, Ta	Oakland	M.E. gr.	827 Ramona, P-p
B.S., California, 1929			
Okker, William	Burlingame	Pre-Med. 133+72	201 Union-*1861*
Oliver, Alden Edward	Mount Eden	Econ. 136+97	13 Toyon-*661*
[1]Oliver, Jay	New York, N.Y.	Econ.90·	181 Lytton, P-*835*
Olmsted, Ardiane	Pasadena	LD 66+29	Alpha Phi-*1387*
[5]Olmsted, Frederick	Stanford Univ.	S.Engr. 91+50	773 Dolores
[234]Olsen, William Irvin	San Mateo	Hist. gr.	114 Warren, SM-sm
A.B., Stanford, 1928			
Olson, A. Clarence	Burlingame	Econ.-Acct. 115·68+24	416 Encina
A.B., Stanford, 1930			
[2]Olson, Louis Victor	El Paso, Texas	Chem. gr.	Cardinal Hotel, P
A.B., Stanford, 1929			
Olson, Obert B.	Long Beach	S.Engr. 98·87+68	450 El Esc.-*1264*
A.B., Stanford, 1930			
[4]Olston, Julia Victoria	Athol, Idaho	Ed.-G.A.‡17+22	330 Wvrly, P-p
[4]O'Malley, Charles Donald	San Francisco	Hist. gr.	1692 8th,SF-sf
A.B., Stanford, 1928, A.M., 1929			
[4]O'Neill, Claire Husted	Stanford Univ.	LD‡11+4	708 Salvatierra-*1292*
[5]Onishi, Masao	Japan	LD 18·37+25	Japanese Club-*959*
[23]Onthank, Karl William	Eugene, Ore.	Educ. gr.	445 El Escarpado–*2428*
A.B., Oregon, 1913, A.M., 1915			
Ophüls, Elinor Helen	San Francisco	LD 95+63	Kappa Kappa Gamma
[12]Ophüls, Ernst Carl	San Francisco	Econ. 180+59	Alpha Delta Phi-*J*
A.B., Stanford, 1930			
Oppenheim, Morris, Jr.	San Francisco	LD 47+22	325 Encina-*1742*
Orner, Arthur	Cleveland, Ohio	Psych. 91·90+48	559 Encina-*535*
A.B., Stanford, 1930			
[1]Orr, Joseph Knight	Laramie, Wyo.	LD 84·35–13	548 Encina
Orsborn, Ernest Vincent	San Francisco	Med. gr.	2740 Washington, SF-sf
A.B., Stanford, 1926			
[5]Osborn, Clarence Gladden	Mayfield	Hist. gr.	741 Columbia, M-m
A.B., Stanford, 1926, A.M., 1927			
Osborn, Earl Forrest	Sebastopol	Hist. 90·44+9	408 Encina-*14*
[4]Osborn, Eleanor	Bellingham, Wash.	Educ. gr.	624 Lasuen-*1727*
B.S., Columbia, 1914			
Osborn, Helen Dunstan	Fresno	LD 92+102	Pi Beta Phi-*1918*
Osborn, Richards Clinton	Redlands	Econ. 135·45+70	229 Union-*929*
A.B., Stanford, 1930			
[4]Osborne, Hortense Marie	Los Angeles	Pol.S. ‡	349 Roble
[13]Osborne, Lee Standish	Los Angeles	Geol.135·46+65	251Hawthorne,P-p
A.B., Stanford, 1930			
Osborne, Robert Chess, Jr.	Mill Valley	LD 47+18	124 Encina
Osborne, Selden Leroy	Mill Valley	LD 97+78	Alpha Kappa Lam.-*658*
[1]Oshier, Edwin Harlow	Boston, Mass.	S.Engr. 83+17	202 Sequoia-*1543*
[12]Osmonson, Willis E.	Palo Alto	Econ. 133+33	576 Everett,-P-p
[4]Ostrander, Marie Clarke	Arcata	Educ. gr.	631 Emerson, P-p
A.B., Humboldt State Teachers College, 1928			
[13]O'Sullivan, John Clark	Morgan Hill	Pol.S. 5·182+2	634 Alvarado-*722*
A.B., Stanford, 1930			
[4]Osuna, Grace Barnes	Marysville	Engl. gr.	808 Waverley, P-p
A.B., California, 1927			
[4]Osuna, Pedro	Marysville	Educ. gr.	808 Waverley, P-p
B.S., New Mexico College of Agriculture, 1920			
Oswill, Donald Charles	Richmond	Econ.-Ac. 99+5	240 Branner-*2668*
Ott, Henry Dorwardt	Ithaca, N.Y.	Geol. gr.	427 Webster, P-p
A.B., Rochester, 1929			

[1]Ott, Henry William	Ferndale	LD 36+23 520 Tennyson, P-p
Overman, Eugene J.	Portland, Ore.	S.Bus. gr. 505 Princeton, M-*1197*
A.B., Reed, 1927; M.B.A., Stanford, 1930		
[12]Overton, Nancy Elton	Piedmont	LD 34–16 324 Roble-*1576*
Owen, Elwood Freeman	Petaluma	Soc.S. 90·44–18 449 Encina-*1603*
Owen, Louis Jackson	Stanford Univ.	LD 88+33 553 Salvatierra
Owen, Zona C.	Caspar	Engl. 145+81 Roble
[4]Oxford, Frances	Pontiac, Ill.	Educ. gr. 636 Alvarado
Ed.B., Illinois State Normal University, 1928		
Packard, Walter Haskins	Corcoran	Psych. 131+67 202Brnr.-Box816,p
Paddleford, Hugh T.	Lodi	Econ. 94–9 Phi Gamma Delta
Padgett, Vernon W.	Texarkana, Ark.	Med. gr. 2180 Washington, SF-sf
A.B., Stanford, 1929		
Page, Ben Markham	Pasadena	LD 48+60 210 Encina-*2021*
Page, Eleanor	Los Angeles	LD 44+3 314 Roble-*1816*
Page, Ernest Winslow	Berkeley	Pre-Cl. 185+252 Al. Kp. Lam.-*658*
A.B., Stanford, 1930		
Page, Griffith Davidson	Los Angeles	LD 42+5 202 Encina-*1816*
Page, Lewis Morton	Kansas City, Mo.	LD 90–3 231 Branner-*1167*
[12]Pahl, Jack George	Berkeley	LD 63+10 Theta Chi-*1383*
Pahl, Rudolph Mentz	Berkeley	S.Engr.119+6 575Salvatierra-*810*
[23]Paine, Elizabeth Trueblood	Berkeley	LD 45+*22* 303 Roble
Paine, Robert Findlay	San Francisco	Econ.181+111 Delta Tau Del.-*1363*
A.B., Stanford, 1930		
[4]Paine, Robert Treat	Redlands	Cl.Lit. 98–5 650 Salvatierra
Painter, Edwin Merle	Bakersfield	M.E. gr. 326 Union-*2487*
A.B., Stanford, 1929		
[2]Pallas, Edward Michael	San Francisco	LD 14–6 2666 22nd St., SF-sf
[5]Pallette, Drew Brown	Los Angeles	LD 28–1 105 Encina-*676*
Palmateer, Ethel M.	Palo Alto	Engl.-P.Sp.137+68 1028Cwpr,P-p
Palmberg, Herbert George	Astoria, Ore.	S.Engr. 144+151 302Sequoia-*1071*
[234]Palmer, Adelaide Dingley	Palo Alto	Ed.-G.A.164+82 369Churchill,P-p
Palmer, Alfred Marlatt	Rosalia, Wash.	Pre-Cl.184+105 543 Byron,P-*1305*
A.B., Stanford, 1930		
Palmer, Errol Payne	Phoenix, Ariz.	LD 43+19 136 Encina-*2616*
[12]Palmer, Kathryn	Saratoga	Engl.-P.Sp.135·46+52 267Rbl.-*864*
A.B., Stanford, 1930		
[12]Palmer, Peter Fourie	Vancouver, B.C.	Econ. gr. 352 Middlefield, P-p
A.B., British Columbia, 1925, A.M., 1926		
Pamphilon, George Maxwell	Burlingame	S.Engr. 153+96 212 Toyon-*16*
[1]Pan, Ta Kuei	Szechueen, China	Pol.S. gr. Chinese Club-*960*
A.B., Stanford, 1927		
[12]Pao, Hua Kuo	China	Pol.S. gr. 335 Lytton, P-*2431*
A.B., Stanford, 1929, A.M., 1930		
[4]Park, Royal Wheeler	Menlo Park	Educ. gr. MP-Box 611, mp
Graduate, West Point, 1918		
Parker, Darrell Russell	Phoenix, Ariz.	Law gr. Palo Alto-Rt. 1, p
A.B., Stanford, 1926, A.M., 1929		
Parker, Donald DeWitt	Pasadena	LD 46+92 128 Encina-*615*
Parker, Frank Botsford	San Diego	Econ. 109+11 213 Toyon-*2244*
Parker, George Stevens	San Diego	LD 40+18 238 Encina-*2244*
Parker, John Stone	Rockford, Ill.	Econ. 130+11 Phi Delta Theta
[4]Parker, Rachel Elizabeth	San Diego	LD ‡ 215 Roble
[12]Parker, Truman Alfred	La Jolla	M.E. 176+69 Kappa Sigma-*1326*
Parkin, John B.	Seattle, Wash.	LD 42+11 119 Encina-*1914*
[4]Parramore, Norwood D.	Abilene, Tex.	LD ‡ 1033 Guinda, P-p

Parrish, Ruth H.	Gt. Barrington, Mass.	Chem. gr.	379 Roble-*2546*
B.S., Massachusetts Agricultural, 1929; A.M., Stanford, 1930			
Parsons, John Frederick	San Diego	M.E. gr.	316 Union-*2331*
A.B., Stanford, 1928, Engineer, 1930			
Pascoe, John Robertson	Palo Alto	LD 97+96	1465 Webster, P-p
Pascoe, Margaret Robertson	Palo Alto	Soc.S. 135-46+48	329 Roble-*1152*
A.B., Stanford, 1930			
[3]Patacsil, Eufrosino Garcia	Munoz, P.I.	Econ.135-10–5	260Miramonte,P-p
Patacsil, Paterno Caccam	Bauang, P.I.	Educ. 90-79–7	570 Alvarado
Paterson, James Kent	Detroit, Mich.	Econ. 90-44+8	774SantaYnez-*657*
Patrick, David Lyall	Menlo Park	Engl. gr.	865 Cambridge, MP-mp
A.B., Iowa, 1922; A.M., Stanford, 1926			
[12]Patten, Frank B., Jr.	Pasadena	Law gr.	SigmaAlphaEpsilon-*1305*
A.B., Stanford, 1929			
[23]Patterson, James Warren	Piedmont	S.-Jn.102-31–4	Mls.Hosp.,SM-sm
Patterson, Ruth Anita	Fresno	Educ. 182+257	AlphaOmi.Pi-*1367*
A.B., Stanford, 1930			
Patterson, Victor H.	Wytheville, Va.	LD 69+1	425 Encina-*913*
[4]Patton, Marvin Bishop	San Francisco	LD	111 Toyon
Patton, Robert Lee	Riverside	Soc.S.-Jn.133-48+51	428Enc.-*2119*
A.B., Stanford, 1930			
[4]Paul, Adele Justine	Mt. Vernon, N.Y.	LD ‡	329 Roble
Paul, Carl John	Redwood City	S.Biol. gr.	20 Birch, RC-rc
A.B., Stanford, 1930			
Pauly, Frederick Nye	Hollywood	Econ. 126+3	Phi Gamma Delta
[4]Paxton, Margaret	Fresno	Educ. gr.	Madroño
A.B., Fresno State Teachers College, 1923			
[12]Paye, Paul William	Palo Alto	Econ. gr.	425 Waverley, P
A.B., Colorado State Teachers College, 1928, A.M., 1929			
Payne, Joe Roger	Palo Alto	LD 39–6	435 Forest, P-p
Pearman, Fred Wolcott	Los Angeles	LD 73+43	555 Waverley, P-*876*
Pearson, Bruce Reed	Turlock	Med. gr.	1920 Pine, SF-sf
A.B., Utah, 1924			
[4]Pearson, Celia Hull	Kearney, Neb.	Educ. gr.	550 Salvatierra-*1187*
A.B., Nebraska State Teachers College, 1927			
[5]Pearson, Harvey Jones	Beverly Hills	Econ. 118+35	Delta Chi-*1304*
Pearson, John St. Clair	Santa Rita, N.M.	S.Engr. 90-87+1	205 Emerson, P-p
[4]Pearson, Stanley G.	Los Angeles	Law gr.	1095 Ashby, P-p
A.B., California at Los Angeles, 1929			
Pease, BradfordNorman	Portland, Ore.	LD 47+53	324 Encina-*2241*
Pease, Richard Arthur	Hollywood	Econ. 147+77	Kappa Alpha
Peat, Hugh John	San Francisco	LD 44+82	122 Encina-*1451*
Peattie, Jillson MacIntosh	San Francisco	LD 44+25	335 Encina-*1423*
Peck, Edward H.	Pomona	S.Let. 86+66	120 Toyon-*95*
[1]Peck, John B.	Honolulu, T.H.	Soc.S. 183+91	Phi Sig. Kap.-*538*
A.B., Stanford, 1930			
Peck, John Daniel	S. San Francisco	LD 89+91	Kingscote-*1665*
Peck, John Higby	San Francisco	Econ. 27-142+240	19 Toyon-*66*
[1]Peck, Templeton	Pomona	S.Let. 192+252	120 Toyon-*95*
A.B., Stanford, 1930			
Peckham, Donald Buttner	San Jose	Econ. 90-45+50	415 N. 15th, SJ-sj
[4]Peckham, Doyle Starr	Taft	Engl. gr.	1850 Bryant, P-p
A.B., Stanford, 1923			
Peckham, James Benjamin, Jr.	San Jose	Hist. 99-84+124	415 N. 15th, SJ-sj
A.B., Stanford, 1930			
Peckler, Edward James	Stockton	Law gr.	321 Union-*1195*
A.B., Stanford, 1929			

Pedden, John R.	Grand Rapids, Mich.	Pre-Med. 154+178	112 Brnr.-*1994*
Pedersen, Nicholas Stork	San Francisco	Pre-Med. 90·45+61	365 Chng.,P-p
[4]Pedersen, Thorwald	Visalia	Hist. 113+129	815 Stanford, M-m
Peet, Elizabeth	Palo Alto	Hist. 70·57+80	470 Coleridge, P-p
[1]P'ei, Chien	Szechuan, China	Bot. gr.	Chinese Club-*960*
A.B., Stanford, 1927, A.M., 1928			
[5]Peiffer, Herbert Claire, Jr.	South Gate	Educ. gr.	407 Encina-*2278*
A.B., California at Los Angeles, 1928			
[4]Peirce, Ruth Juniata	Glendale	Educ. gr.	550 Salvatierra
B.S., South Dakota Agricultural, 1901			
[234]Pellegrini, Louis William	Santa Rosa	LD 14+11	344 Encina-*822*
[5]Pendleton, James Henry	Wichita, Kans.	Educ. gr.	1680 College, M
A.B., Wichita, 1919; A.M., Stanford, 1930			
[3]Pendleton, Philip Y., Jr.	Phoenix, Ariz.	Law 48·133+16	Theta Delta Chi
A.B., Stanford, 1930			
Penfield, Louis Snow	Mill Valley	LD 92+68	Kingscote
[1]Penn, Amos Benkov	Szechuan, China	S.Biol. 90·7+2	335 Lytton, P-*1942*
[5]Penn, William Y.	Austin, Texas	Geol. 135·45+12	1127 High, P-*2724*
[12]Percy, Walker	Stanford Univ.	Pol.S. 123–1	Zeta Psi-*B*
Perelli-Minetti, Mario Joseph	Delano	Econ. 142+131	Phi Kappa Psi
Perin, Raymond J.	Burlingame	S.Engr.5·184+78	218Branner-*2131*
A.B., Stanford, 1930			
[4]Perkins, Betsy H.	Kennebunkport,Maine	Educ. gr.	332 Roble
A.B., Arizona, 1930			
[4]Perovich, Mary Helen	San Jose	LD‡9+6	1140 Sherwood, SJ-sj
Perren, Vernon Earl	San Jose	Law gr.	553 Encina-*2668*
A.B., Stanford, 1929			
Perry, Francis Berton	San Francisco	Cl.Lit. 5·141+111	239 Toyon-*42*
[5]Perry, Gilbert B.	San Diego	Pol.S. 135·42+9	228 Union-*527*
[5]Perry, Robert Hazlett	Palo Alto	Pol.S. 132+62	Kappa Sigma-*1326*
[4]Peters, Ellen Russell	Alameda	LD ‡	112 Roble
Peters, Keith Wadsworth	Peoria, Ill.	Pol.S. 135·45+4	306 Union-*2457*
A.B., Stanford, 1930			
[4]Peters, Samuel Everett	Long Beach	Educ. gr.	531 Harvard, M-m
A.B., Maryville, 1921; A.M., Stanford, 1929			
[5]Peters, William Howard	Glendale	Econ. 93·34–6	410 Lytton, P-*1652*
Petersen, Harry George	San Leandro	LD 45+30	139 Encina-*1641*
Petersen, Henry Charles, Jr.	Stockton	LD 45·35–4	23 Encina-*2755*
Petersen, Irving Harold	Richfield, Utah	S.Bus. gr.	548 Alvarado-*2665*
B.S., Utah, 1929			
[4]Peterson, Gladys Elizabeth	Ceres	Educ. ‡	254 Roble-*2172*
[4]Peterson, John Oscar	San Diego	Educ. gr.	619 Webster, P-p
A.B., Kansas, 1920			
Peterson, Joseph Lowery	Pueblo, Colo.	Psych. 136+129	Sigma Nu-*577*
Peterson, Melvin Theodore	Eureka	Chem. 90·46+33	407 Sequoia-*1452*
Peterson, P. Victor	San Jose	Chem. gr.	460 S. 11th, SJ-sj
A.B., Iowa State Teachers College, 1917; A.M., Stanford, 1921			
Peterson, Raymond A.	Idaho Falls, Ida.	S.Engr.105·52+66	680Clg.,M-*1843*
[34]Petit, Charles Francis	Ventura	Econ. 115·15+16	106 Sequoia
[4]Petri, Louis Angelo	San Francisco	LD	133 Toyon
[4]Petsch, Philip Robert	Los Angeles	Germ. gr.	207 Hawthorne, P-p
Pett, Stuart Brandon	Salt Lake City,Utah	LD 44+24	127 Encina-*2256*
[2] Pettker, John Henry	St. Louis, Mo.	S.Engr. 135·21–8	124Emerson,P-p
Petty, Claude Rowland	Oakland	Soc.S.-Jn. 90·68+11	548 Encina
Phelps, Lou	Hermosa Beach	LD 45+31	317 Encina-*2481*
[13]Phelps, Wilson Willets	Los Angeles	Econ.15·122+53	Al.TauOme.-*1384*

[3]Philbrook, Warren Rutland — Modesto — S.Engr.90·102+8 — 314Sequoia-*1134*
A.B., Stanford, 1930
[4]Phillips, Evert J. — Oklahoma City, Okla. — Psych. gr. — 208 Oak, P-p
A.B., Southwestern State Teachers College, 1924; M.S., Oklahoma, 1928
[4]Phillips, MargaretC. — OklahomaCity, Okla. — Educ. gr. — 208 Oak, P-p
A.B., Oklahoma City, 1925
Pickles, Sidney Benson — Monterey — Phys. 91·42+29 — 441 Foothill-*855*
[5]Pierce, Claire Mary — Los Angeles — Germ. gr. — Alpha Omega Pi-*1367*
A.B., Stanford, 1930
[4]Pierce, Fred Herbert — Santa Barbara — Educ. gr. — 401 Tennyson, P-p
A.B., Santa Barbara State Teachers College, 1929
Pierce, Glenroy Nelson — Burlingame — LD 45+19 — 2710 Easton, B-b
[12]Pierce, Margaret — Los Angeles — Engl. 185+119 — 320 Roble-*1492*
A.B., Stanford, 1930
[5]Pierce, Robert Ernest, Jr. — Lindsay — Econ. 125+2 — Delta Chi-*1304*
[4]Pierce, Zelma Wescott — Santa Barbara — Educ. gr. — 116 Emerson, P-p
A.B., Santa Barbara State Teachers College, 1929
Piercy, Robert Lee — Youngstown, Ohio — LD 49+49 — 138 Encina-*1521*
Pierose, Perry Nick — Los Angeles — LD 42+27 — 316 Encina-*1881*
[1]Pigott, Arthur W. — Seattle, Wash. — LD 59–15 — 531 Homer, P-p
Pihl, Donald S. — Mountain View — Pol.S.90·47+36 — 770Bailey,MV-mv
Pike, John Jacob — Los Angeles — LD 48+54 — 305 Encina-*1751*
[5]Pike, Thomas Potter — Los Angeles — Econ. 130+130 — Alpha Delta Phi-*J*
Pillsbury, Arthur F. — Stanford Univ. — C.E. gr. — 521 Encina-*1301*
A.B., Stanford, 1928, Engineer, 1930
Pinkston, Beth Tollan — Los Angeles — Pre-Med.130+207 — Al.Omi.Pi-*1367*
[5]Pinsdorf, Kate — Matto Grosso, Brazil — Hist. gr. — Madroño
A.B., Smith, 1928; A.M., Stanford, 1929
Pischel, Bradley Dart — Salt Lake City, U. — Pol.S. 7·139+4 — Theta Xi
Pison, Donato T., Jr. — Molo, Iloilo, P.I. — S.Engr.61·118–19 — 705 Cowper,P-p
[1]Pitts, Dorothy Sara — Long Beach — LD 78·56–1 — 1246 Emerson, P-p
Plate, Phoebe — San Jose — Engl.-P.Sp.9·186+239 — 221Rbl-*1352*
A.B., Stanford, 1930
Platt, Howard Charles — San Francisco — S.Engr. 180+43 — 141 Toyon-*2024*
A.B., Stanford, 1930
[1]Platz, Charles Parker — Ft. Collins, Colo. — Chem.90·8–6 — 363 Melville, P-*2128*
Plumb, Edward Lyman — S.Pasadena — LD 37+13 — 219 Encina-*1744*
Plumb, Preston B., Jr. — S. Pasadena — LD 89+9 — Zeta Psi-*B*
Plymire, Harry Lawson — Palo Alto — Pol.S. 90·44+19 — 1341 Univ., P-p
Pockman, Leonard Trainer — Los Angeles — LD 44+82 — 357 Encina-*2491*
Poinsett, Howard Bouquet, Jr. — Pinole — LD 89+2 — Sigma Chi-*628*
Polhamus, Robert Grey — Hollywood — LD 44+14 — 248 Encina-*2701*
[4]Polk, Wesley Porter — Quincy, Ill. — LD — 727 Addison, P
Pollak, John D. — Albany, Ore. — Med. gr. — 1853 Webster, SF-sf
A.B., Stanford, 1928
Pollard, Bernard B. — Wayne, Neb. — Soc.S.-Jn. 49·100+55 — 226Tyn-*2786*
Pollard, Henry Lyon, Jr. — Chandler, Ariz. — LD 57+19 — 41 Encina-*2044*
Pollard, Marvin Edwin — Oak Park, Ill. — LD 45–7 — Encina-*1922*
Pollock, Mary-Jane C. — Bloomington, Ill. — Soc.S. 134+89 — Alpha Phi-*1387*
Polster, Arthur H. — Warrenton, Mo. — Educ. gr. — 339 Kellogg, P-p
A.B., Central Wesleyan, 1920; A.M., Stanford, 1930
[12]Polverino, Joseph John — San Jose — Pol.S. 185+157 — 106 Branner
A.B., Stanford, 1930
Ponti, Joseph A. — Vallejo — LD 110+91 — 307 Sequoia-*2164*
[1]Pontius, William Byron — Montague,Mich. — Pol.S. 96·84–5 — 428 Encina-*2757*
Pool, Morris Francis — Gridley — Chem. 90·44+39 — 212 Kipling, P-p

Poole, Robert William A.B., Stanford, 1929	Redwood City	Law gr. 248 Wash., RC-Box 67,rc
Pope, Norris Francis	Santa Cruz	Pol.S.129+42 Sigma Al. Eps.-*1305*
[34]Popenoe, Herbert A.B., Stanford, 1922	Altadena	Educ. gr. Baywood, P-p
[4]Popper, James Maurice	Oroville	LD 214 Union
Porter, Andrew O. A.B., Stanford, 1930	S. Pasadena	Pol.S. 185+180 209 Branner-*2207*
Porter, John Lemoyne B.S., Princeton, 1926	Alma, Neb.	Chem. gr. 437 Encina-*1512*
[1]Porter, William T.	Pocatello, Idaho	S.Engr.90-17–1 175ParkBlvd-*2762*
[4]Post, Anita Calneh Ph.B., Arizona, 1909, A.M., 1917	Tucson, Ariz.	Span. gr. Madroño-*1217*
[234]Post, Edward Harrison	San Diego	Econ. 90-96+0 678 Mirada
[3]Post, Janet G. A.B., Stanford, 1930	Berkeley	Hist. 9-171+267 Chi Omega
Post, Thomas Barnes	Geneva, N.Y.	LD 85+3 Chi Psi-*1647*
[2]Postley, Clarence Sterling A.B., Harvard, 1928	Burlingame	Geol. gr. 405 Chapin, B-b
[23]Powell, Bruce Townsend	Spokane,Wash.	LD 27+7 125 Encina-*2762*
[4]Powell, Edwinna A.	San Diego	Educ. ‡ 156 Roble
[5]Powell, Henry Peabody A.B., Stanford, 1928	Santa Ana	Math. gr. 402 Sequoia-*2173*
[23]Powell, John Lindsey	Los Angeles	LD 27–9 402 Encina-*643*
Powell, Robert Jameson	Alameda	Econ. 121+35 Sigma Al. Eps.*1305*
[5]Power, Maurice S.	San Francisco	Hist. 26-140+192 320 Sequoia
[4]Powers, Louise	Pacific Grove	Zoöl. 90- Pacific Grove-pg
Powers, Marylyn	Los Angeles	Hist. 9-116+39 KappaAlphaTheta
[13]Powers, Maxine Louise	Los Angeles	LD 65+45 Kappa Alpha Theta
Powers, Ralph Marion A.B., Stanford, 1930	Pacific Grove	Econ. 181+217 323 Sequoia-*1286*
Poynter, William Frank	Davenport, Wn.	LD 88+24 591 Salvatierra-*1355*
[1]Poytress, William H. A.B., California, 1916	San Jose	Econ. gr. 785 Pershing, SJ-sj
Pratt, Donald Roy	San Francisco	Pre-Med.145+173 212Toyon-*1103*
[1]Pratt, Norman Uriah A.B., Stanford, 1930	Belvidere, Ill.	Econ. 5-180+126 Col.Way,MP-*101*
Prelsnik, Charles Joseph	San Francisco	LD 42–1 323 Encina-*1732*
Prescott, Basil Osborne	Palo Alto	LD 44–8 401 Lytton, P-p
Prescott, Frances Foster A.B., Stanford, 1925	San Francisco	Med. gr. 3064 Sacramento, SF-sf
Prescott, Walton A.B., Stanford, 1929	Berkeley	Med.gr. SanFranciscoHos.,SF-sf
[4]Preston, Hartwell L.	Los Gatos	Engl.-P.Sp.‡ 521 Lasuen
Preston, John Beverly A.B., Stanford, 1930	Palo Alto	Mil.S. 180+53 62 Churchill, P-p
Preston, Mary Isabel A.B., Stanford, 1919, A.M., 1920	Santa Clara	Med. gr. 2512 Washington, SF-sf
[4]Preston, Peggy A.B., California, 1930	Los Altos	Pol.S. gr. Los Altos-Box 284, la
[2]Preston, Richard Joseph A.B., Michigan, 1927, M.S., 1928	Chicago, Ill.	Engl. gr. 640 Gilman, P-p
Price, Bronson B.S., Antioch, 1929	Rochester, N.Y.	Psych. gr. 548 Alvarado
[4]Price, Elizabeth Johnson B.S., Missouri, 1917; A.M., Columbia, 1926	Fresno	Educ. gr. 319 Roble-*2241*

[12]Price, James Francis Manhattan, Kans. Law gr. 956 Boyce, P-p
B.S., Kansas State Agricultural, 1927; LL.B., Stanford, 1930
Price, Luther Glynne San Francisco Bact. gr. 1499 Union, SF-sf
A.B., Stanford, 1925
[234]Price, Muriel Mayfield Engl. 89·69–2 27Wdld.,M-B992,p
[4]Price, Neva Esgate Riverside Engl. gr. 248 Roble
A.B., California at Los Angeles, 1929
[5]Price, Robert Maurice Markleeville Econ. 125–3 Theta Chi-*1383*
[23]Priest, Howard L. Oilfields LD 94+13 140 Toyon
Prince, John Dudley Los Angeles Bact. 92·34+17 407 Wvly, P-*2018*
Prince, Richard N. Alameda Chem. 173+20 Phi Kappa Psi
Prior, William Wilson, Jr. Escondido Law gr. 334 Union-*1341*
A.B., Stanford, 1929
Prisinzano, Gandolph San Francisco Pre-Clin. 194+82 541 Encina-*618*
A.B., Stanford, 1930
[5]Prisinzano, James Edward San Francisco Law gr. 541 Encina-*618*
A.B., Stanford, 1928
[12]Proctor,PhimisterBayard StanfordUniv. Geol. 85+24 570 Mayfield
[4]Provan, Howard San Jose Educ. gr. 86 Lucretia, SJ-sj
A.B., Stanford, 1927
[4]Pugh, William R. Santa Clara Educ. gr. 42 Pruneridge, SC-sc
A.B., San Jose State Teachers College, 1928
[4]Pulliam, Nolan Downing Phoenix, Ariz. Educ. gr. 557 Lasuen-*1335*
A.B., Central College, 1925
[5]Purcell, James Coughlin Represa Educ. gr. *226* Sequoia-*1242*
A.B., Stanford, 1928, J.D., 1930
[4]Purdy, Mary Stanford Univ. Hist. ‡ 158 Roble-*2756*
Purdy, Raymond Modesto Econ. 90·90+5 *233* Branner-*1100*
A.B., Stanford, 1930
Puthoff, Eugene Thomas San Bernardino Pre-Med. 138+85 129 Branner-*712*
[124]Putnam, Albert George San Francisco Econ. 179+80 Phi Gamma Delta
Putnam, Barbara Pasadena Econ. 90·92+93 *274* Roble-*1422*
A.B., Stanford, 1930
[13]Putnam, Thorington Caldwell Exeter LD 20·77+69 Theta Chi-*1383*
[12]Putnam, William Clement Exeter Geol. gr. Theta Chi-*1383*
A.B., Stanford, 1929, A.M., 1930
Pyle, Dorothy Ethel Fairfield Hist. 47·85+9 254 Roble-*2253*
Pyle, John Hastings Pasadena Econ. 84·97+6 Beta The. Pi-*1335*
A.B., Stanford, 1930
[234]Qualls, Orron A. Fresno Educ. gr. 758 Waverley, P-p
A.B., Fresno State Teachers College, 1930
[1]Querna, Glenn Madison, Minn. Econ. 135·14–8 Delta Chi-*1304*
Querna, Milburn Howard Madison, Minn. Pre-Cl.189+133 Al. Tau Om.-*1384*
A.B., Stanford, 1930
[4]Quibell, Charles H. Fresno Bot. gr. 13 Toyon-*1022*
A.B., Pomona, 1927
Quigley, John Scott Alameda Med. gr. 2202 California, SF-sf
A.B., Stanford, 1926, A.M., 1929
[5]Quigley, Richard Havelock Oakland LD 70+42 Alpha Tau Omega-*1065*
[12]Quinn, Dorothy Margaret Stockton Engl.-P.Sp. gr. Al. Omi. Pi-*1367*
A.B., Stanford, 1928, A.M., 1930
[1]Quinn, Edward Eberhard Santa Clara LD sp. 10–7 575 Grant,SC-BxE,sc
Quinn, Edward Morgan Stockton Med. gr. 2303 Sacramento, SF-sf
A.B., Stanford, 1928
[4]Quinn, Helen Veronica San Francisco Educ. gr. Roble
A.B., San Francisco State Teachers College, 1928
[12]Quinn, Howard Edward San Francisco Econ. 94·32+12 Kingscote
Quinn, Jack Clark San Francisco LD 51+41 335 Encina-*1431*

Quirk, Akeley Park — Los Angeles — LD 95+26 — Delta Upsilon
Rachford, Nolan Eugene — Mountain View — Pol.S. 133+13 — 259 Loreto,MV-mv
[5]Radcliffe,WilliamHickman,Jr. — PaloAlto — Econ. 87-84+10 — 311 Portola, P-p
Radius, Walter Albrecht,Jr. — SanFrancisco — LD 94+118 — Al.Kappa Lambda-*658*
Radlin, Myron Leonard — Los Angeles — LD 90+15 — 133 Toyon-*1804*
[4]Raggio, Anne — Stockton — LD — 378 Golden Gate, SF-sf
[234]Ramey, Earl — Marysville — Hist. gr. — 745 Homer, P-*1136*
A.B., Stanford, 1925
[12]Raney, Edwin Albert — Morgan Hill — LD 35–15 — 759 Oregon, P-*675*
[5]Raney, Mary Evangeline — Morgan Hill — Bact. gr. — 555 Lytton, P-p
A.B., Stanford, 1928
[1]Ranney, Charles R. — Cleveland, Ohio — LD 90+3 — Sigma Nu-*1385*
[1]Ranney, Rufus P. — Cleveland, Ohio — Hist. 201+41 — Sigma Nu-*1385*
A.B., Stanford, 1930
[1]Ransdall, Harold Vincent — Burlingame — Geol. 90-21–5 — 4 E. Carol, B-b
Rantz, Lowell Addison — Placerville — LD 92+78 — Kingscote
[12]Raoul-Duval, Richard M. — Paris, France — Law gr. — 159 Emerson, P
A.B., Stanford, 1928, J.D., 1930
[4]Rathbun, Helen Katherine — Williams — Zoöl. gr. — Pacific Grove-pg
A.B., Mills, 1930
[5]Rawlings, Stuart Lamar, Jr. — Piedmont — LD 68–7 — Alpha Delta Phi-*J*
Rawlins, Grove Allen — Willows — S.Biol. 178+94 — AlphaKp.Lam.-*658*
Ray, Alvin Wilton — San Francisco — LD 86+24 — Phi Kappa Psi
[4]Ray, Herndon Carroll — McCloud — Educ. gr. — 230 Kellogg, P-p
A.B., Stanford, 1929
[12]Ray, John Wilbur — Palo Alto — Econ. 180+37 — 345 Forest, P-p
A.B., Stanford, 1930
[4]Ray, Thelma Tipton — El Centro — Ed.-G.A. gr. — 710 Yale, M-m
A.B., California, 1921
Raymond, Roy Henry — Petaluma — S.Bus. gr. — 524 Homer, P-p
A.B., Pomona, 1928; M.B.A., Stanford, 1930
Rea, James William — San Jose — LD 37+1 — 234 Encina
Rea, John Huntington — Pasadena — Sc.S.-Jn.90-42–10 — 418Rma,P-*1267*
Rea, Stanley Leroy — Ukiah — LD 49+63 — 218 Encina-*2159*
Read, Jesse Wilmot — Tacoma, Wash. — Med. gr. — 1905 Laguna, SF-sf
A.B., Stanford, 1927
[12]Read, Robert DeLeo — Tacoma, Wash. — Pre-Med. 121+31 — 213 Toyon-*1258*
Reagh, John Dallas, Jr. — Seattle, Wash. — LD 92+106 — 136 Toyon-*871*
[4]Rear, Thelma Mary Jane — Los Angeles — Engl. gr. — 178 Park, P-p
A.B., Southern California, 1928, A.M., 1929
[23]Recknagel, Carl Albert — Vallejo — S.Engr. 103+1 — 250 Branner-*2668*
[5]Redeker, Harry Erwin — Palo Alto — Chem. gr. — 319 Ramona, P-p
B.S., Idaho, 1912; A.M., Stanford, 1928
[4]Redford, Edward H. — Vacaville — Educ. gr. — 628 Webster, P-p
A.B., State College of Washington, 1927
Redhead, John Joseph — Portland, Ore. — LD 44+20 — 138 Encina-*903*
[1]Redman, F. Munro — Portland, Ore. — S.Engr. 99-52–16 — 430 Encina-*21*
Reed, Earl Elbert — Nampa, Idaho — Pol.S. 183+86 — 203 Sequoia-*1042*
A.B., Stanford, 1930
[1]Reed, Frazier O. — San Jose — Econ. 135- — 533 Encina-*2137*
Reed, Greta Louise — Youngstown, Ohio — LD 89+20 — Alpha Omicron Pi-*1367*
[234]Reed. Isa Dolores — Berkeley — Psych. gr. — 620 Waverley, P-*1225*
A.B., Nebraska, 1911, A.M., 1916
Reed, James — San Francisco — LD 89+33 — Theta Xi
[5]Reed, Marian Elizabeth — Palo Alto — Educ. gr. — 525 University, P-p
A.B., Stanford, 1930
Reed, Parker Clarke, Jr. — Covina — Psych. 139+112 — 258 Toyon-*2665*

Reed, Samuel Payne — Stanford Univ. — Phys. gr. — 204 Union-*1116*
A.B., San Jose State Teachers College, 1929
[23]Reed, Warren D. — San Jose — S.Engr. 90·125+5 — 1052Brace,SJ-sj
[124]Reed, William Francis — San Francisco — Law gr. — Chi Psi-*1648*
A.B., Stanford, 1930
Reeder, Ferd John — Aberdeen, S.D. — Phil. 90·40–14 — 640 Gilman, P-p
[4]Rees, Elinor Celyn — Monterey Park — Engl. gr. — 565 Salvatierra
A.B., Southern California, 1921, A.M., 1923
[12]Rees, John H. — Los Angeles — Econ. 180–7 — Alpha Delta Phi-*J*
[4]Reeve, Frank Driver — Albuquerque, N.M. — Hist. gr. — 304 Union
A.B., New Mexico, 1925, A.M., 1928
[4]Regnart, Marjorie Jean — San Jose — Ed.-G.A. gr. — 1013 Ramona, SJ-sj
A.B., San Jose State Teachers College, 1928
[1]Rehrig, B. Houston — Los Angeles — S.Bus. gr. — Zeta Psi-*B*
A.B., Stanford, 1929
Reich, August — Bakersfield — Med. gr. — 2355 California, SF-sf
A.B., Stanford, 1928
Reich, Henry L. — San Francisco — LD 45+79 — 325 Encina-*1891*
Reich, Marion Ralph — San Francisco — LD 63+38 — 17 Encina-*1891*
Reich, Thomas — Bakersfield — LD 39·48+29 — 401 Encina-*1016*
*Reid, George Alfred — Toronto, Ont. — Math. 45·100+35 — Phi Delta Theta
[5]Reid, John Turner — Palo Alto — Span. gr. — 527 Homer, P-*986*
A.B., Stanford, 1929
[4]Reid, Robert Morrison — Hayward — Educ. gr. — 1345A, Hayward-h
Graduate, San Jose State Normal, 1902; LL.B., Michigan, 1911
Reindollar, Ted C. — San Rafael — LD 57+41 — 230 Encina-*594*
Reinert, Stanley Goddard — San Francisco — Econ. 90·90+11 — 465 36thAv.,SF-sf
A.B., Stanford, 1930
Reinhart, Allan Manfred — San Francisco — LD 35–15 — 303 Encina-*1582*
[5]Reisacher, Fred Anthony — Portland, Ore. — Pol.S. 126·45+7 — 401 Lytton, P-p
[4]Reiterman, Carl — Superior, Ariz. — Educ. gr. — 476 Forest, P-p
A.B., Stanford, 1921
[3]Rempel, David Gerrard — Langham, Sask. — Hist. gr. — 625 Hamilton, P
A.B., Bluffton, 1927; A.M., Wisconsin, 1928
Rench, James H. — Burlingame — Econ.90·49+16 — 736Farringdon,B-b
Rendle, Irvine A. — Rawlins, Wyo. — Pol.S. 94·50–1 — Delta Upsilon
[4]Renfrow, Russell E. — Miami, Okla. — Econ. ‡ — 3 Union-*918*
[4]Rennick, Howard Leroy — Mulvane, Kans. — Educ. gr. — 1004 Emerson, P-p
B.S., Kansas State Teachers College, 1926; A.M., Stanford, 1930
Renstrom, Frank Oscar, Jr. — SanFrancisco — LD 46+18 — 233 Encina-*2005*
Reppy, Joan — Los Angeles — LD 62+28 — Kappa Alpha Theta
[12]Rettig, Fred E. — Palo Alto — Zoöl.5·90+7 — P.A.-Rt. 1, Box 34B,p
Revell, J. Harold — Los Angeles — Mil.S.5·160+47 — 1321Waverley,P-p
Reynolds, Frank C. — Chico — S.Biol. 90·97+19 — 403 Sequoia-*1229*
A.B., Stanford, 1930
Reynolds, Hazel Alice — Ukiah — Educ. gr. — Gamma Phi Beta-*1337*
A.B., Stanford, 1930
Reynolds, June Aileene — Palo Alto — LD 45+0 — 853 Middlefield, P-*1826*
Reynolds, Kenneth Mike — Pasadena — Econ. 122+12 — Phi Delta Theta
Reynolds, Robert Perrin — Palo Alto — Econ. 137+48 — 554 Kingsley, P-p
[4]Rhoades, Charles Arthur — Mountain View — Educ.gr. — 1609Villa,MV-B491,mv
A.B., San Jose State Teachers College, 1928
Rhoades, Robert Force — Great Falls, Mont. — LD 100+59 — 310 Sequoia-*2691*
Rhodes, Patricia Etheridge — Vallejo — Phil. 180+248 — Kappa Alpha Theta
A.B., Stanford, 1930
[12]Rice, Marjorie E. — San Diego — Pol.S. gr. — Kingscote
A.B., Stanford, 1929, A.M., 1930

[12]Rice, Sidney S., Jr.	Los Angeles	LD 75+39	113 Branner-*1678*
[1]Rich, Anna Harris	San Mateo	Fr. gr.	61 Hayward, SM-sm
A.B., Stanford, 1926			
Rich, Katharine Wiley	Berkeley	Engl. 127+92	Kappa Alpha Theta
Richards, George L., Jr.	Los Angeles	Geol. 159+27	257 Toyon-*948*
[5]Richards, G. Roberta	Lodi	Pol.S. gr.	Sigma Kappa-*1327*
A.B., Stanford, 1929, A.M., 1930			
Richards, Robert LeGrande	Denver, Colo.	Econ. 92·92+21	224 Sequoia-*2557*
A.B., Stanford, 1930			
Richards, William Sidney	San Jose	Econ. 24·102+95	Kappa Alpha
Richardson, Arthur Pawley	Maui, T.H.	LD 94+126	Delta Chi-*1304*
Richardson, Daniel Gaches	Berkeley	Econ. 154+38	Al. Kap. Lam.-*658*
[5]Richardson, Eri Horner, Jr.	Palo Alto	Econ. 117+18	552 Kellogg, P-p
Richardson, George C.	San Francisco	Med. gr.	2180 Washington, SF-sf
A.B., Stanford, 1927			
Richardson, Harvey L.	Modesto	Law gr.	1047 Ramona, P-p
A.B., Michigan, 1927			
Richardson, Hildur	San Gabriel	Soc.S. 180+131	DeltaGamma-*1366*
Richardson, J. Wilfred	San Jose	Chem. gr.	212 S. 11th, SJ-sj
A.B., San Jose State Teachers College, 1929			
Richardson, Palmer	Minneapolis, Minn.	LD 90+48	Theta Xi
Richmond, Mary Lee	Arlington	Engl. 137+164	Gam.PhiBeta-*1337*
Ricketts, Charles W.	Los Gatos	Law gr.	408 Sequoia-*645*
A.B., Stanford, 1928			
[24]Ricketts, Victor Lafayette	Palo Alto	Engl. 153+72	1020 Waverley, P-p
Ricklefs, Robert Ulric	Palo Alto	Educ. 5·146+47	227 Toyon-*Zero*
Riddell, William A.	Vancouver, B.C.	Chem. gr.	1004 Emerson, P-p
A.B., Manitoba, 1925, B.S. 1926; M.S., Saskatchewan, 1928			
Riddle, Sturgis McKinney	Long Beach	Cl.Lit. 141+237	127 Branner
[5]Rider, Edward	Oakland	Educ. gr.	1068 Univ., P-p
A.B., California, 1928			
[5]Ridley, Ian Marston	Alameda	Soc.S. 124+107	106 Branner-*2647*
Ridley, Kenneth Felton	San Jose	M.E. gr.	1161 Cherry, SJ-sj
A.B., Stanford, 1929, Engineer, 1930			
Riede, Harold Francis	San Rafael	Hist. 90·49+52	Phi Gamma Delta
[23]Riga, Gustav Robert	San Francisco	Pre-Med. 111·30+23	643High,P-p
[5]Riggins, George Albert Nye	Napa	LD 42+45	229 Encina-*707*
Riley, William Brand	Portland, Ore.	Hist. 181+11	717 Bryant, P-*B*
A.B., Stanford, 1930			
Ring, Douglas H.	Salt Lake City, Utah	E.E. gr.	213 Sequoia-*1130*
A.B., Stanford, 1929, Engineer, 1930			
Rintala, Rudolph A.	San Francisco	LD 89+31	Kappa Sigma-*1326*
Ripley, Alexander Baillie	Tacoma, Wash.	LD 40–4	305 Encina-*1038*
[4]Ripley, Cora Annette	San Jose	Educ. gr.	624 Lasuen
A.B., Stanford, 1921			
[4]Ritchie, Eva	Ojai	Educ. gr.	536 Alvarado
A.B., Maryville, 1919			
Rittenhouse, Emmet Louis	Santa Cruz	LD 91+24	Delta Chi-*1304*
*Ritter, Lucy Elizabeth	Stockton	Soc.S. 3·181+202	232 Roble-*2707*
A.B., Stanford, 1930			
Ritter, Ovid Herbert, Jr.	Stockton	Soc.S. 135·47+10	304 Union-*2707*
A.B., Stanford, 1930			
[5]Ritter, Robert Carbonell	Ross	Chem. gr.	662 Mirada
A.B., Stanford, 1930			
[12]Rivard, Joseph Alfred Ulric	Mt. View	Span. gr.	St. Joseph's, MV-mv
A.B., St. Mary's, 1919			
Roach, David John	Azusa	Educ. 90·90+143	206 Sequoia-*505*
A.B., Stanford, 1930			

Roach, John Arthur — Hollywood — LD 37–14 — 30 Encina-*2581*
Roach, William Lloyd — Ponca City, Okla. — Educ. gr. — 527 Cornell, M-*2783*
A.B., Oklahoma, 1920, A.M., 1922
[4]Roark, Adah A. — Stevensville, Mont. — Educ. ‡ 15+8 — 113 Byron, P-p
[4]Roark, Madison L. — Stevensville, Mont. — Educ. gr. — 113 Byron, P-p
A.B., George Peabody College for Teachers, 1895; A.M., Chattanooga, 1898
Robb, James Milton — Palo Alto — Pol.S. 105·46–21 — 349Hamilton,P-p
Robb, John E. — Minneapolis, Minn. — LD 47+9 — 302 Encina-*1856*
Robbins, Cora Maude — Whittier — Engl. gr. — Sigma Kappa-*2463*
A.B., Whittier, 1929
[5]Robbins, Milard D. — Cookeville, Tenn. — Educ.‡47+57 — 1116 Bryant, P-p
[4]Roberts, Frank Arthur — Spokane, Wash. — Educ. gr. — 319 Union-*1121*
B.S., State College of Washington, 1920, A.M., 1925
[23]Roberts, Chauncey Stephen — Palo Alto — LD 17·44+19 — 558 Hawthorne, P-p
[1]Roberts, Earl George — Eureka — Pre-Med. 96+19 — 227Waverley,P-p
[13]Roberts, James Morton — Seattle, Wash. — Econ. 129+175 — Phi Gamma Delta
[12]Roberts, John Ferguson — Carlsbad — S.Engr. 94+15 — 1335 Cowper, P-p
[23]Roberts, William Abbott — Palo Alto — Econ. 113+12 — 540 Lowell, P-p
[12]Robesky, Donald Albert — Bakersfield — Law gr. — 1307 University, P-p
A.B., Stanford, 1929
Robins, Earl M. — Los Angeles — Pol.S. 92·88+55 — 759 Mdlfld,P-*2125*
A.B., Stanford, 1930
Robinson, Beverly Callicott — Hanford — LD 94+24 — 26 Branner-*2692*
Robinson, Homer C. — Salt Lake City, Utah — Pol.S. 90·45+25 — PalmCt.Apts.,P-p
[5]Robinson, J. William — Los Angeles — Pol.S.9·163+126 — Al.TauOm.-*1384*
Robinson, Marjorie — Los Altos — LD 64+32 — Kappa Kappa Gamma
Robinson, Russell — Palo Alto — LD 90+15 — Delta Tau Delta-*1363*
Robinson, Russell Gideon — Santa Monica — M.E. gr. — 511 Encina-*2488*
A.B., Stanford, 1928, Engineer, 1930
[4]Robison, Bonnie B. — Port Angeles, Wash. — Educ. gr. — Oakley, P
A.B., Washington, 1927
Robson, George Bernard — Campbell — Pre-Clin.90·101+122 — 203 Seq.-*1233*
A.B., Stanford, 1930
Rochefort, Mary Carroll — Lawrence,Mass. — LD 45+75 — 255 Roble-*2305*
Rode, Howard Schaeffer — Oakland — Law gr. — 303 Union
A.B., Stanford, 1929
[23]Rode, John Kinsey — Etna — LD 6·65+30 — 506 Mayfield-*2757*
Rode, Walter Lincoln — Oakland — Soc.S. 139+103 — 301 Branner
Rodgers, Robert Henry — Santa Cruz — LD 42+29 — 128 Encina-*1965*
Rodgerson, Eleanor Burgess — Sacramento — Pre-Med.90·90+91 — 228 Roble-*2737*
Roff, Donald D. — Ventura — Law gr. — 730 Bryant, P-p
A.B., California, 1929
[1]Rogers, Genevieve — Stanford Univ. — Engl. gr. — 549 Salvatierra-*87*
A.B., Stanford, 1926, A.M., 1930
[4]Rogers, Josephine Margaret — Santa Cruz — Educ. gr. — 591 Bryant, P
A.B., Reed, 1917
Rogers, Ronald Howe — Stanford Univ. — Soc.S.-Jn.90·58+49 — 549 Sal't'ra-*87*
Rogers, Thornwell Green — Beverly Hills — LD 43+15 — 328 Encina-*2541*
Rogers, Vance C. — Burbank — S.Engr. 171+103 — 109 Branner-*1453*
[4]Rohden, Elizabeth Helen — Bellevue, Wash. — Germ. gr. — 125 Bryant, P-p
A.B., Washington, 1919
Rohlf, Orville A. — Minneapolis, Minn. — Law gr. — 349 Hamilton, P-p
A.B., Minnesota, 1927; LL.B., Stanford, 1930
Rohnert, Frederick Waldo — Hollister — LD 41–7 — 336 Encina-*1847*
Romanofski, Anton — San Bruno — Min. gr. — 879 Easton, SB-Bx 52, sb
A.B., Stanford, 1929
Romer, Arthur M. — San Francisco — Pre-Clin. 135·49–30 — 224 Union

Romig, Howard G. Fairbanks, Alaska Pre-Med.118-47+29 T.Dl.Chi-*1828*
Rood, Reginald Shepard San Diego Med. gr. French Hospital, SF-sf
A.B., Stanford, 1927
Roos, John Mack San Francisco LD 50+21 203 Encina-*2008*
[12]deRoos, Robert William Santa Monica LD 27+8 115 Encina-*1201*
Rorden, Louis Maurice Petaluma LD 59+24 230 Encina-*1098*
Rosasco, John Loring Healdsburg Med. gr. 2351 Washington, SF-sf
A.B., Stanford, 1929
[4]Rose, Isabel D. Silver City, N.M. Engl. gr. 121 Wilson, P-p
A.B., New Mexico State Teachers College, 1928
Rose, Robert Harold Otwell, Ind. Geol. gr. 211 Union-*715*
A.B., Indiana, 1906
[5]Rose, Stanford Leland Tulsa, Okla. Geol. 95-45+24 538 Alvarado
[4]Rose, Yancey Lamar Silver City, N.M. Soc.S. gr. 121 Wilson, P-p
B.S., New Mexico State Teachers College, 1927
Roseberry, Ruth Sybil Los Banos Econ. 138+117 300 Roble-*703*
Rosenberg, Jean Kansas City, Mo. LD 80+26 256 Roble-*2343*
Rosenberry, John M. Coeur d'Alene, Ida. Soc.S. 132-39 Phi Sig. Kappa-*538*
[5]Rosenblatt, Irving S., Jr. San Francisco Hist. 124+144 235 Toyon-*2496*
Rosenmeier, A. Gordon Little Falls, Minn. Law gr. Alpha Delta Phi-*J*
B.S., Minnesota, 1928
[34]Rosenstein, Samuel Wm. Brooklyn, N.Y. Pre-Med. 49-50+7 306Sequoia-*633*
Ross, Darrell Emerson Long Beach LD 47+20 320 Encina-*1642*
[12]Ross, Gordon Los Angeles LD 39+17 401 Encina-*873*
[12]Ross, John William Corte Madera Law 6-174+30 Phi Kappa Sigma
A.B., Stanford, 1930
Ross, Joseph Foster Covina LD 46+65 247 Encina-*736*
[4]Ross, Leola Palo Alto LD ‡ 9+0 561 Middlefield, P-p
[4]Ross, Louisa McCain San Diego Psych. gr. 112 Cambridge, MP
B.S., California, 1924
[12]Ross, Lydia Goodwin Phoenix, Ariz. Soc.S.69-75+105 Kap.AlphaTheta
[234]Ross, Maurice B. San Diego Educ. gr. 112 Cambridge, M P
B.S., California Institute of Technology, 1924
Ross, Neil Bramlet Los Angeles Econ. 136+45 223 Toyon-*2039*
[5]Ross, Ruth Eleanor Palo Alto LD 42+2 1830 Cowper, P-p
Rossarini, Catherin Mary Truckee Econ. 180-161 Del.Del.Del.-*1325*
A.B., Stanford, 1930
[4]Rothermel, Bertha Mina Houghton, N.Y. Engl.-P. Sp. gr. 169 Roble
A.B., Houghton, 1930
Rothert, Harlow Phelps Los Angeles Econ. 162+176 Beta Theta Pi-*1335*
Rott, Reuben Paul Lodi Law gr. 304 Union-*1093*
A.B., Stanford, 1929
[4]Rouda, Earl Rich San Francisco LD ‡ 115 Toyon
[12]Roumm, Morris Flint, Mich. Hist. 102-91+89 171 Everett, P-p
A.B., Stanford, 1930
[5]Rounsefell, George Armytage Palo Alto Zoöl. gr. 1119 High, P-p
A.B., Stanford, 1926; M.S., Washington, 1929
Rowe, Lyle Boyd Great Falls, Mont. LD 46+59 235 Encina-*1893*
Rowe, Melvin John, Jr. Norwalk Soc.S. 189+120 Theta Xi
A.B., Stanford, 1930
Rowe, Robert David San Mateo Chem. 142+138 221 Toyon-*1511*
Rowell, Margaret Electa Fresno Econ. 90-45+35 273 Roble-*92*
[3]Rowland, Wilbur Hunt San Francisco Pol.S.180+76 326 Hawthorne, P-p
A.B., Stanford, 1930
Rowley, Milton Harper Erie, Pa. Econ. 91-93+35 Phi Delta Theta
A.B., Stanford, 1930
[4]Rowley, Pauline L. M. Madison, Wis. Cl. Lit. gr. Staller Court, P-p
A.B., Wisconsin, 1927

[5]Rozeboom, Egbert A.	Monmouth, Ore.	Educ. 55·84–3	656 Bwdn.,M-*1874*
[12]Rubenstein, Victor Gerald	Hollywood	LD 7·83+63	*227* Branner-*1483*
[13]Ruch, Floyd Leon	Eugene, Ore.	Psych. gr.	1221 Byron, P-p
B.S., Oregon, 1925; A.M., Iowa, 1926			
[5]Rumbley, Jane Elizabeth	Los Angeles	Geol. 82·59+29	Gam.Phi Beta-*1337*
Rumsey, Leroy Renner	El Centro	Eng.-P.Sp. 90·47+17	208 Seq.-*2403*
[6]Rumwell, Arnold	San Francisco	Law 195+33	624 Lasuen-*1*
Runyon, Leslie A.	Sacramento	Pre-Med.90·45+14	741 Hmr,P-*878*
Rupkey, Robert H.A.	CoolidgeDam,Ariz.	C.E. gr.	209 Kipling, P-p
B.S., Arizona, 1922; Engineer, Stanford, 1930			
[1]Ruschin, Louis John	Newark	LD	230 Encina-*1882*
[12]Rusk, Glenn Orde	Ferndale	S.Engr.90·79+27	554 Encina-*731*
[14]Russ, Donald Lawrence	San Francisco	LD 89+20	Chi Psi-*1648*
[12]Russ, Fred Mills	San Francisco	Hist. 182+9	Chi Psi-*1648*
A.B., Stanford, 1930			
Russell, Albert Mitchell	San Francisco	LD 84+14	310 Sequoia-*2683*
Russell, Fred Wayne	Denver, Colo.	Chem. 135·47+36	PhiGam.Delta
A.B., Stanford, 1930			
[4]Russell, George Giles	Stanford, Mont.	Educ. gr.	815 Stanford, M-m
A.B., Intermountain Union, 1923			
[1]Russell, George Henry	Palo Alto	Econ. 87·10–10	470 Ruthven, P-p
Russell, Jack Drinker	Portland, Ore.	LD 48+8	*246* Encina-*1701*
Russell, Richard Alfred	San Francisco	Soc.S.-Jn. 110·70+3	520 Enc.-*2136*
A.B., Stanford, 1930			
Russell, Wilfred William	Auburn	S.Engr. 118+19	140 Branner-*1035*
Rust, Frederick Farlow	Enumclaw,Wash.	LD 94+67	316 Sequoia-*1634*
Rutherford,FindlaydePaul	SantaBarbara	Med. gr.	2430 Fillmore, SF-sf
A.B., California, 1926			
[1]Ruwe, John William, Jr.	Los Angeles	Econ. 133·49+22	233 Union-*845*
A.B., Stanford, 1930			
[4]Ryan, Elizabeth Lunney	Sacramento	LD 36–5	355 Roble
Ryan, Richard Emmet	Long Beach	Soc.S. 95·45+13	Kingscote-*826*
Rytand, David A.	San Francisco	Med. gr.	1990 Green,SF-sf
A.B., Stanford, 1929			
Sachse, Franz Robert	Pasadena	Pol.S. 133+82	520 Cowper, P-p
[4]Sackett, Eben John	Redlands	LD sp. 16+1	540 Bowdoin, M-m
[4]Sacks, Benjamin	Philadelphia, Pa.	Hist. gr.	304 Union-*821*
A.B., New Mexico, 1926; A.M., McGill, 1927			
Safier, Benno	San Francisco	Pre-Med.134+94	524Emrsn,P-*2764*
Sagal, Richard Edward	Los Angeles	Econ. 93·89+103	239 Branner-*2233*
A.B., Stanford, 1930			
[5]Sahyun, Melville	Santa Barbara	S. Biol. gr.	Pacific Grove-pg
A.B., American University (Syria), 1916; A.M., Stanford, 1929			
[3]Saiz, Clive Meadford	Portland, Ore.	Engl.-P.Sp.gr.	Cal.Mil.Acad.,M-m
A.B., Albany, 1924			
[4]Sale, Burton, Jr.	Redondo Beach	LD 25–21	302 Union
[1]Salsman, Byrl Richard	Palo Alto	Law gr.	900 Waverley, P-p
A.B., Stanford, 1928, J.D., 1930			
Salzer, Herbert Carl	Los Angeles	LD 96+57	108 Branner-*2133*
Sammis, Frederick Minturn	Los Angeles	LD 46+2	119 Encina-*1553*
Sampson, Kenneth Vieth	Piedmont	Econ. 29·151+0	Phi Kappa Psi
[4]Sander, Henry Rey	Piedmont	LD ‡	Toyon
[12]Sandholdt, John Peter	Monterey	Pre-Med.90·30–15	MenloPark-mp
[34]Sands, Lester Bruton	Mesa, Ariz.	Educ. gr.	El Toro-*2665*
A.B., Stanford, 1929			
Sanford, Frances G.	Burlingame	Econ. gr.	380 Roble-*2384*
A.B., Stanford, 1929			

Sapero, James J.	San Francisco	Med. gr.	2480 Washington, SF-sf
A.B., Stanford, 1928			
Sapiro, Nathan Avrom	Stockton	Med. gr.	2275 Jackson, SF-sf
A.B., Stanford, 1928			
Sarau, Christian Anton	Riverside	Soc.S. 54·134+124	504 Enc.-*1285*
A.B., Stanford, 1930			
Sargent, Arthur McClellan	Los Gatos	Soc.S.-Jn.100·38–18	T.D.Chi-*1828*
Saufley, William Evans	Hollywood	LD 45+46	201 Encina-*2294*
Saunders, John H., Jr.	Sydney, Australia	Econ. 180+80	Phi Kappa Psi
A.B., Stanford, 1930			
Saunders, Russell Lyall	San Francisco	LD 25–12	447 Encina-*1636*
Sauter, John Baldi	San Francisco	LD 132+84	121 Toyon-*811*
Savage, Edward Labadie	Reno, Nevada	LD 79+15	Alpha Delta Phi-*J*
Savage, Meredyth	San Bernardino	Engl.-P.Sp.126·55+16	PiB.Ph-*1918*
A.B., Stanford, 1930			
Sawyer, Norman Davies	Chevy Chase, Md.	LD 95+96	22 Branner
Sawyer, Robert Sheldon	Los Gatos	Econ. 106·74+89	312 Sequoia
A.B., Stanford, 1930			
[4]Saxe, Robert Alan	San Francisco	LD	Toyon
[4]Scannell, Ruth Hamilton	Palo Alto	Soc.S. gr.	2411 Waverley, P-p
A.B., Smith, 1915			
Scatena, James Almer	Yerington, Nevada	LD 91+75	Alpha Sigma Phi-*1357*
Scattergood, Elisabeth H.	Los Angeles	Hist. 190+150	Del. Del. Del.-*1325*
A.B., Stanford, 1930			
Schaefer, George Everett	Oroville	LD 90+11	111 Branner
Schaefer, Peter Charles, Jr.	Denver, Colo.	Econ. 44·93+1	443 Kipling, P-*1467*
[4]Scharff, Arthur Bernard	Memphis, Tenn.	Fr. ‡	Stanford Univ.
[4]Schatz, Betty Lee	Fresno	Educ. gr.	560B Forest, P-p
A.B., Fresno State Teachers College, 1926			
[4]Schatz, Clarence R.	Fresno	Educ. gr.	560B Forest, P-p
A.B., Fresno State Teachers College, 1928			
Scheidecker, Albert F.	Sebastopol	Law gr.	302 Union-*812*
A.B., Stanford, 1926, J.D., 1930			
Schick, Joseph A.	San Francisco	Chem. 153+120	183 Evrt, P-*1088*
Schickler, Eugene	San Francisco	LD 90+92	135 Branner-*587*
Schink, William August	Victoria, B.C.	LD 44+48	306 Encina
Schlegel, Henry Kirby	Los Angeles	LD 84+30	Alpha Tau Omega-*1384*
[1]von Schlegell, Frederick, Jr.	Pasadena	Econ. 24·115–16	Zeta Psi-*B*
[4]Schlein, Walter Charles	Fresno	Educ. gr.	402 S. 14th, SJ-sj
A.B., Stanford, 1926			
Schmid, Clarence Lincoln	Palo Alto	S. Bus. gr.	235 Emerson, P-p
A.B., Stanford, 1929			
Schmidt, David Gordon	Fresno	Med. gr.	2321 Sacramento, SF-sf
A.B., Stanford, 1928			
Schofield, Mary Lusia	Palo Alto	Hist. gr.	751 Channing, P-p
A.B., Stanford, 1929, A.M., 1930			
Scholtz, Julius	Los Angeles	Pre-Clin. 135·49+40	505 Enc.-*2826*
A.B., Stanford, 1930			
[4]Schreibeis, Charles D.	Hollister	Hist. gr.	Woodand PkCamp-*1573*
A.B., Northern Arizona State Teachers College, 1929			
Schuck, Lillian	Palo Alto	Psych. 123+209	333 Portola,-P-p
Schuck, Victoria	Palo Alto	Pol.S. 181+338	333 Portola, P-p
A.B., Stanford, 1930			
[5]Schulte, Antoinette Lacoste	San Francisco	Zoöl. 9·124+61	Alpha Omi.Pi-*1367*
[4]Schulte, Thomas L.	San Francisco	Zoöl. ‡	Pacific Grove-pg
§Schumacher, Leopold Carl	Lucerne, Switz.	M.E. gr.	715 Bryant, P-*1147*
A.B., Stanford, 1929			

§ Deceased, June 24, 1930.

Schuyler, Samuel Arthur A.B., Stanford, 1930	Los Angeles	Bact. 135·48+65	627 Homer, P-p
Schwafel, Jacob T. A.B., Stanford, 1930	San Luis Obispo	Econ. 185+204	116 Branner-*2022*
[23]Schwartz, Daniel M.	San Francisco	LD 31+20	301 Encina-*2822*
Schwartz, Irving	Napa	Pre-Med.156+87	217Branner-*1494*
[4]Schwarzkopf, Helen Dolly	Arcadia	LD	303 Roble
[4]Schwarztrauber, Ralph A.B., Fresno State Teachers College, 1930	Porterville	Math. gr.	635 Bryant, P-p
Schween, C. Bardin	Salinas	LD 41+37	324 Encina-*1406*
[4]Schwindt, Martin D. A.B., Carleton, 1927	Ft. Morgan, Colo.	Educ. gr.	Hamilton Apts., P-p
Sciarini, Iolande Doris	Mountain View	LD 51+58	351 Roble
[5]Scott, Charles Craven A.B., Stanford, 1927, A.M., 1929	Twin Falls, Idaho	Hist. gr.	13 Union-*2014*
[5]Scott, Daniel Altekruse	San Martin	LD 42+30	305 Encina-*1942*
Scott, Elizabeth	Portland, Ore.	LD 68–23	204 Roble-*1214*
Scott, Esther Thayer	Sacramento	LD 29+29	114 Roble-*2216*
Scott, Paul Taplin	Arcadia	LD 87+15	Sigma Chi-*628*
Scott, Robert Weller A.B., Stanford, 1928	South San Francisco	Law gr.	317 Union-*1471*
Scott, William P., Jr.	San Francisco	S.Engr.128+12	AlphaSig.Phi-*1357*
Scribner, FrederickFrancis	Davenport,Ia.	LD 42+43	404 Encina-*2262*
Scripps, Fredrick Tudor	San Diego	Pol.S. 139+41	Zeta Psi-*B*
Scully, William Stephen A.B., Loyola, 1927; LL.B., Stanford, 1930	Los Angeles	Law gr.	107 Staller Court, P-p
[4]Seagoe, May Violet Ed.B., California at Los Angeles, 1929	Alhambra	Educ. gr.	222 Sequoia, P
[1]Seale, Barbara A.B., Stanford, 1930	Palo Alto	Soc.S. 116·67+4	Pi Beta Phi-*1918*
[1]Seaman, John Allen	Escalon	Pre-Med. 82–10	301 Branner-*581*
Searls, Frederick Taylor	San Francisco	LD 45+44	232 Encina-*2151*
Sears, John Alden	Seattle, Wash.	LD 81–10	Theta Chi-*1383*
[1]Seibert, Olga Luella A.B., Stanford, 1930	Long Beach	Span. 52·128+66	334 Cowper, P-p
[1]Seidenfeld, MortonAlfred B.S., Washington, 1927	SanFrancisco	Bact. gr.	UnionLeagueClub,SF-sf
[5]Seitz, Frederick	San Francisco	LD 84+90	16 Jerry, MP
[12]Sen, Chih-uan A.B., Stanford, 1930	Kweichow, China	Pol.S. 90·90+18	250Cowper,P-*705*
Senders, Alison Frances	Albany, Ore.	LD 45+1	338 Roble-*1724*
[4]Seppi, Rudolph Henry	Buckley, Wash.	Educ. 135·17+11	257 Toyon-*1101*
[4]Sessions, Royal Fred A.B., Southwestern, 1921; M.S., Vanderbilt, 1922	San Antonio, Tex.	Chem. gr.	1256 College, M-*957*
Seth, James	Santa Fe, N.M.	LD 40+10	307 Encina-*1735*
Severance, Harold L.	Great Falls, Mont.	LD 90+60	136 Toyon-*1563*
Seward, Raymond Sanford B.S., Pomona, 1912; A.M., California, 1921	Berkeley	Phys. gr.	7 Union-*501*
Sexson, Paul Alexander A.B., Stanford, 1930	Phoenix, Ariz.	Hist. 180+35	Kappa Sig.-*1326*
[4]Seymour, Letitia Newman	Sacramento	Educ. ‡	406 Ramona, P-p
[4]Shannon, Marguerite A.B., San Jose State Teachers College, 1928	San Jose	Educ. gr.	96 S. 6th, SJ-sj
[23]Shannon, Rollin Robb A.B., Indiana, 1926	Williamsport, Ind.	Med. gr.	2201 California, SF-sf
[4]Shapiro,HerbertLawrence	SanFrancisco	LD ‡	132 Toyon
[1]Shapiro, Jerome A.B., Reed, 1929	Portland, Ore.	S.Bus. gr.	692 Mirada-*1202*

[5]Shapovalov, Leo A.B., Stanford, 1930	Riverside	Zoöl. gr.	Pacific Grove-pg
[2]Sharp, James Benjamin A.B., California, 1922, A.M., 1926	San Francisco	Econ. gr.	Menlo School, MP-mp
Sharp, James Meikle	Santa Paula	S.Engr. 134+124	213 Toyon-*2145*
[134]Sharp, Stanley L. A.B., Utah, 1929	Menlo Heights	Germ. gr.	Perry, MP-*517*
Shattuck, William Lutz A.B., Stanford, 1930	San Francisco	Econ. 180+60	Phi Kappa Psi
Shaull, Ethel Mae A.B., Stanford, 1924	Glendale	Med. gr.	2321 Sacramento, SF-sf
[5]Shaw, Edward S. A.B., Stanford, 1929	Palo Alto	Econ. gr.	33 Encina Ave., P-Bx8,p
[4]Shaw, John A., Jr. A.B., Washington and Jefferson, 1919	Spokane, Wash.	Educ. gr.	33 Encina Av., P-Bx 8,p
[23]Shaw, Laurence L.	Klamath Falls, Ore.	Phil. 104.10+1	Phi Kappa Psi
Shaw, Philip M. A.B., Stanford, 1930	Palo Alto	S.Engr. 192+30	555 Kellogg, P-p
[12]Shaw, William Lawrence A.B., Stanford, 1930	Sacramento	Pol.S. 90·90+40	306 Sequoia-*1185*
[4]Shawe, Hamilton B. B.S., Oregon State Agricultural, 1924	Gardnerville, Nev.	Educ. gr.	319 Union-*2436*
Shean, Austin Darr	San Rafael	Econ. 90·42–8	678 Mirada-*2185*
Shearer, Mildred Dabney A.B., Stanford, 1930	Los Angeles	Engl. 135·45+14	238 Roble-*2284*
Sheedy, Burnham	New York, N.Y.	LD 46+40	31 Encina-*1801*
[1]Sheets, Emily Katherine A.B., Vassar, 1929	Montclair, N.J.	Engl. gr.	166 Roble-*2767*
[5]Sheldon, Dean Howell	Los Angeles	Geol. 107·40+22	257 Toyon-*2761*
[4]Sheldon, Donald R. B.S., Kansas State Teachers College, 1927	Holbrook, Ariz.	Educ. gr.	239 Hawthorne, P-p
Shibley, George Edward	Long Beach	Hist. 135+109	436 Encina-*950*
Shibley, Wadieh S.	Long Beach	Pol.S. 135+67	436 Encina-*950*
[4]Shidler, Frederic Porter	Torrance	LD	118 Toyon
[12]Shidler, John Ashton	Torrance	LD 65–14	Sigma Alpha Eps.-*1305*
[3]Shigeta, Mitsuharu A.B., College of the Pacific, 1927	Tokyo, Japan	Soc.S. gr.	Japanese Club-*598*
[5]Shikuma, Kenji Fred	Watsonville	Econ. 90·41+1	Japanese Club-*598*
Shinbo, Hachiro A.B., Stanford, 1929	Seattle, Wash.	Bact. gr.	Japanese Club-*598*
[4]Shipkey, Ted Edwin A.B., Stanford, 1927	Fullerton	Educ. gr.	Kappa Sigma
[23]Shipp, Frederic Thomas A.B., Stanford, 1922	San Jose	Educ. gr.	1358 Shasta, SJ-sj
Shipp, Robert Temple A.B., Stanford, 1930	Battle Creek, Mich.	Chem. 96·86+86	402 Staller Ct., P-p
[23]Shippey, Hartwell	Los Angeles	LD 28+11	434 Encina-*112*
Shippey, Mervyn G.	Visalia	Hist. 90·59+19	221 Toyon-*1845*
Shirk, Chester Ryan A.B., LaVerne, 1929	LaVerne	Educ. gr.	851 Lytton, P-Box341,p
[4]Shirley, Katherine	Grand Canyon, Ariz.	LD ‡	225 Roble
Shively, Betty Theresa A.B., Stanford, 1930	Portland, Ore.	Hist. 183+34	Chi Omega
[5]Shively, Dariel	Bakersfield	Zoöl. 141+24	316 Roble-*2572*
[4]Shoemaker, Rosemary	Los Angeles	Pre-Clin. 147+157	277 Roble-*2727*
Shoenhair, Maxine Mabel A.B., Stanford, 1930	Los Angeles	Hist. 43·138+89	Kappa Alpha The.
[1]Shoenhair, Theodore Kinne A.B., Stanford, 1930	Los Angeles	Law 187+5	Menlo Park-Bx336,mp

[4]Shoesmith, Earl Byron	Chico	Educ. 92·70+22	564University,P-p
Shook, Ila Lee	Corning	LD 47·47+13	359 Roble-*2492*
Shortall, Jane Elizabeth	San Francisco	LD 44+35	244 Roble-*2465*
Shortridge, John G.	Menlo Park	Law gr.	Menlo Park-Box 682,mp
A.B., Stanford, 1929			
Shorts, Bruce	Seattle, Wash.	Econ. 133+46	DeltaKappaEpsilon
Shorts, Calhoun	Seattle, Wash.	LD 45+56	*222* Encina-*2321*
Shoup, Frances Elizabeth	Los Altos	Pol.S. 180+102	KappaKappaGam.
A.B., Stanford, 1930			
[4]Shoup, Ruth Snedden	New York, N.Y.	Hist. 63·106+82	Los Altos-la
Shove, Maynor Ben	Pasadena	Econ. 135+90	Phi Delta Theta
Shriver, Carol Felicia	Pasadena	Engl. 88·51+24	*229* Roble
[23]Shuder, Harry Andrew	Mayfield	Educ. gr.	1664 Calif., M-*1705*
A.B., Drury, 1911; S.T.B., Harvard Divinity, 1914			
Shuman, Marian	Los Angeles	Engl. 44·91+120	307 Roble-*40*
Shupp, F. Elizabeth	Pasadena	Phil. 90·90+64	Alpha Phi-*1387*
A.B., Stanford, 1930			
[12]Shupp, Kenneth Reed	Merion, Pa.	Phil. 181+51	Chi Psi-*1648*
A.B., Stanford, 1930			
Shuster, Melvin	Eureka	S.Engr. 90·43–6	RamonaHtl.,P-p
[4]Shwayder, Monty Charles	San Francisco	LD	Atherton
[2]Sibley, Robert	Berkeley	E.E. gr.	2471 Cedar, B-b
B.S., California, 1903, E.E., 1922			
Siegfried, Joseph H.	Kennewick, Wash.	LD 89+33	Phi Sigma Kappa-*538*
Siegfried, Nanelia	Palo Alto	S.Let. 186+238	310 Waverley, P-p
A.B., Stanford, 1930			
Siegfried, Victor	Palo Alto	E.E. gr.	310 Waverley, P-p
A.B., Stanford, 1930			
Siegfried, Victoria	Palo Alto	Engl. 128+91	310 Waverley, P-p
[4]Silbaugh, Della Masten	Red Bluff	Educ. ‡	717 Bryant, P-p
[12]Sill, Joseph, Jr.	Pasadena	Econ. 40·60+59	717 Bryant, P-p
Silliman, Julian Winthrop	Palo Alto	S.Engr. 186+169	1160 Bryant, P-p
A.B., Stanford, 1930			
Silliphant, William Merrill	San Francisco	Med. gr.	2200 Post, SF-sf
A.B., Southern California, 1926			
[4]Silsbee, Elizabeth	Sacramento	Educ. gr.	325 Roble
A.B., College of the Pacific, 1928			
[234]de Silva, Paul Lewis	San Francisco	LD 48·25+12	432 Encina-*2108*
Silva, Will	Half Moon Bay	E.E. gr.	109 Sequoia
A.B., Stanford, 1929			
Silver, Rafael von Heim	Oakland	LD 24·53+81	209 Encina
[23]Silverman, George J.	Lawrence, Mass.	LD 28+24	426 Encina-*886*
Silverman, Milton	Piedmont	Phys.S.187+150	230 Branner-*2333*
A.B., Stanford, 1930			
Silverthorn, Richard Harvey	Palo Alto	Pol.S. gr.	565 Hamilton, P-p
B.S., Purdue, 1915			
Simatovich, Anthony P.	San Francisco	S.Engr. 187+68	218 Toyon
A.B., Stanford, 1930			
[13]Simkins, William	Manhattan Beach	Econ. 166+121	Zeta Psi-*B*
[4]Simmonds, Ray Julius	San Francisco	LD ‡	120 Toyon
[23]Simon, Louis	San Francisco	Pre-Med.90·18+9	1256Dlrs.,SF-sf
Simon, Ralph Allen	San Francisco	LD 91+45	217 Branner
[5]Simon, William John	Los Angeles	S.Engr. 168+112	PhiKappaSigma
Simons, Arthur Evert	Berkeley	LD 48+72	45 Encina
Simons, Ralph Hugh	Kellogg, Ida.	Econ. 135·50+40	420Hamilton,P-p
A.B., Stanford, 1930			
[4]Simonson, DeCalvus William	Pasadena	Engl. gr.	347 Alma, P-p
A.B., Harvard, 1921, A.M., 1922			

Simpson, Robert Lee A.B., Stanford, 1930	Fresno	Zoöl.-Med.90-99+122	943Bry't,P-p
Sims, Richard Maury, Jr.	Berkeley	Econ. 147+169	Zeta Psi-*B*
[1]Sims, Robert Floyd A.B., Stanford, 1930	Long Beach	Econ. 181+66	255 Everett, P-p
Singelyn, Elmer Charles	Inglewood	Econ. 88-47+11	436 Encina-*2181*
[1]Singer, John Hutchins A.B., Stanford, 1930	Lincoln	Econ. 181+30	Sigma Nu-*1385*
Singer, Sidney Charles, Jr.	Glendale	LD 3-98+80	*227* Branner-*2187*
Sisson, Charles Alex. A.B., Kansas, 1923	Lawrence, Kans.	Engl. gr.	505 Oberlin, M-*2788*
Skaff, Fred George A.B., California at Los Angeles, 1927; LL.B., Stanford, 1930	Hollywood	Law gr.	1035 Parkinson, P-p
Skanchy, Willard Leland B.S., Utah Agricultural, 1928	Logan, Utah	Law gr.	758 Waverley, P-p
[4]Skeen, Ray L. A.B., Willamette, 1923; A.M., Washington, 1928	Umatilla, Ore.	Educ. gr.	347 Alma, P-p
[4]Skelley, Lester Everett A.B., Chico State Teachers College, 1928	Chico	Educ. gr.	1033 Guinda, P-p
[5]Skelton, Harris Rolland A.B., Stanford, 1929	Southgate	Econ. gr.	531 Encina
Skinner, Clifton Ross A.B., Stanford, 1929, Engineer, 1930	Palo Alto	E.E. gr.	*265* Coleridge, P-p
Skinner, John William	Oakland	LD 91+145	Phi Gamma Delta
[5]Skipwith, Marvin	Los Angeles	Phil. 132–7	*226* Toyon-*2486*
[4]Skow, Royce Kenneth	San Jose	S.Biol. 137+79	Pacific Grove-pg
[4]Slater, Esther Grace A.B., De Pauw, 1912	Winter Springs	Engl. gr.	233 S. 23rd, SJ-sj
[4]Slatore, Lee Roy A.B., San Jose State Teachers College, 1929	San Diego	Educ. gr.	87 Glen Eyrie, SJ-sj
Slater, V. Giddings A.B., Stanford, 1927	Culver City	Med. gr.	2480 Washington, SF-sf
Slawson, Harrison S.	Sacramento	Econ. 18-109+102	535 Slvtra-*2703*
[5]Sleeper, George E., Jr.	Berkeley	S.Engr. 106-52+1	Theta Xi
[4]Sloane, John Lloyd	Sanger	Educ.‡32–4	*276* Sheridan, M-m
Slocum, Donald Barclay	Portland, Ore.	LD 94+45	Pacific Grove-pg
[5]Slocumb, Rigdon Hall	San Francisco	Econ. 133+14	*262* Rinconada, P-p
[5]Sloss, Henry Esberg	San Francisco	S.Engr. 137+12	126 Branner-*2614*
[5]Sloss, Joseph, Jr.	San Francisco	S.Engr. 140+29	126 Branner-*2614*
[13]Small, F. McCauley	Los Angeles	Soc.S.-Jn. 143+145	Theta Xi
Smalling, Charles O.	Templeton	Econ. 142–25	Phi Delta Theta
Smith, Adele Katherine	Washington,D.C.	Soc.S. 123+106	DeltaGamma-*1366*
[5]Smith, Anna Evelyn A.B., Mills, 1929	San Francisco	Chem. gr.	370 Roble-*1244*
[4]Smith, Arthur D. A.B., Fresno State Teachers College, 1929	Lindsay	Educ. gr.	540 Salvatierra
Smith, Bromley Keables	San Diego	Pol.S. 45-60+91	105 Encina-*1300*
[12]Smith, Calvin J. A.B., Stanford, 1930	Los Angeles	Soc.S. 135-45+21	235 Union-*2315*
Smith, Charles Blakslee A.B., Stanford, 1930	Los Angeles	Pol.S. 5-184+77	Al.TauOme.-*1384*
Smith, Charles Edward A.B., Stanford, 1927	Sacramento	Med. gr.	2180 Washington, SF-sf
[4]Smith, Charles Kirtland	Palo Alto	Econ. 90-32–29	1335 Cowper, P-p
[12]Smith, Clarence Richard	Comptche	Phys. 109+2	815 Stanford, M-m
Smith, Clyde Kempton	Burlingame	LD 46+34	*226* Encina
[1]Smith, Delbert L.	Covina	LD 15+5	424 Encina-*2763*

[14]Smith, Donald Franklin — Los Angeles — Pol.S. 173+97 — Al.Tau Ome.-*1384*
[234]Smith, Edward Anderson — Palo Alto — Educ. gr. — 545 Bryant, P-*2132*
A.B., Stanford, 1928
Smith, Edward Lee — Kemmerer, Wyo. — Econ. 98·86+21 — 209 Sequoia-*1125*
A.B., Stanford, 1930
Smith, Edward Wright — Santa Barbara — S.Bus. gr. — 206 Union-*905*
A.B., Stanford, 1929
[1]Smith, Edwin Russell — Los Angeles — LD 71–4 — Alpha Tau Omega-*1384*
Smith, Floyd Russel — Franklin, Pa. — Bact. gr. — 327 Lytton, P-p
A.B., Bucknell, 1929; A.M., Stanford, 1930
Smith, Frank Hilton — San Francisco — Med. gr. — 3467 Jackson, SF-sf
A.B., Stanford, 1929
[1]Smith, George Abbott — Orange — LD — 352 Encina-*1921*
[1]Smith, George E. P., Jr. — Stanford Univ. — Chem. gr. — 2 Union-*521*
A.B., Arizona, 1926; Ph.D., Stanford, 1930
Smith, George Raymond — Princeville, Ill. — Econ. 180+169 — 140 Toyon-*1228*
A.B., Stanford, 1930
Smith, George Shaw — St. Louis, Mo. — Econ. 185+66 — Sigma Chi-*628*
A.B., Stanford, 1930
[5]Smith, Gilbert Wheeler — Minneapolis, Minn. — Chem. gr. — 241 Toyon-*2205*
A.B., Stanford, 1930
[5]Smith, Hamilton A. — Palo Alto — Geol. 90·69–15 — 219 Seale, P-p
Smith, Harry Bell — Oakland — Econ. 49·79–10 — Zeta Psi-*B*
[124]Smith, Hebard Payson — Berkeley — Law gr. — 239 Toyon-*605*
A.B., Stanford, 1930
Smith, Helen Agatha — Portland, Ore. — Hist. 196+252 — Chi Omega
A.B., Stanford, 1930
Smith, Jack Carpenter — Tulsa, Okla. — Chem. gr. — 116 Branner-*2146*
A.B., Stanford, 1930
[4]Smith, James Clinton — Lodi — Econ. 91· — 141 Toyon
Smith, Jerome Frost — Palo Alto — Pre-Cl.15·216+22 — 541 Stnfrd,M-m
A.B., Stanford, 1930
[4]Smith, Jessie Dunlap — Twin Falls, Idaho — Engl. gr. — 149 Cowper, P-p
A.B., Whitman, 1916
Smith, Kernick — San Francisco — LD 86+11 — Kappa Sigma-*1326*
[4]Smith, Leila Deborah — Williamsport, Ind. — Engl. gr. — *227* Roble
A.B., Oberlin, 1914; A.M., Columbia, 1928
Smith, L. Elden — Whittier — S.Bus. gr. — Menlo Park-*82*
A.B., Whittier, 1928; M.B.A., Stanford, 1930
[3]Smith, Lemuel Coats, Jr. — El Paso, Texas — M.E. 181+1 — 365 Lincoln, P-p
Smith, Lewis Nelson — San Francisco — Pol.S. 181+40 — Beta Theta Pi-*1335*
A.B., Stanford, 1930
Smith, Lonon Quinn — Ducor — S.Engr. 90·49+58 — 1506Col.,M-*2188*
Smith, Lurton Robert — E. Helena, Mont. — Phys. 90·40–2 — 181 Lytton, P-*2403*
[4]Smith, Madison Oliver — Pueblo, Colo. — LD — 137 Toyon
Smith, Marienne Elizabeth — Mill Valley — Engl.-P.Sp.90·49+30 — 164Rble-*723*
[34]Smith, Maurice L. — Mt. Pleasant, Mich. — Educ. gr. — 947 Waverley, P-*2035*
B.S., Columbia, 1919, A.M., 1925
[5]*Smith, Melvin Edw. — SaltLakeCity,Utah — Engl. 162+*227* — 112 Toyon
Smith, Meredith Kopp — Tacoma, Wash. — Pol.S. 93·92+35 — 431 Encina
A.B., Stanford, 1930
[4]Smith, Merrill Jefferson — Roswell, N.M. — Educ. gr. — 669 Mirada-*1221*
B.S., Massachusetts Institute of Technology, 1914
Smith, Percy A. — Stockton — Law gr. — *322* Union-*1162*
A.B., College of the Pacific, 1927; LL.B., Stanford, 1930
Smith, Philip Patterson — Stanford Univ. — Psych. 104–3 — 212 Sequoia-*2346*
Smith, Philip Templeton — Santa Monica — Pol.S. 180+39 — Phi Kappa Sigma
A.B., Stanford, 1930

Smith, Phillip Bannister — Palo Alto — Econ. 180+105 — 530 Webster,P-*833*
A.B., Stanford, 1930

Smith, Powell Eugene — Santa Barbara — Econ. 90·90+88 — *226* Union-*1296*
A.B., Stanford, 1930

Smith, Robert Elliott — Azusa — Chem. 90·92+47 — 306 Union-*2015*
A.B., Stanford, 1930

Smith, Robert Gumbert — Coronado — LD 30+1 — 209 Encina

Smith, Robert Lee, Jr. — Pomona — LD 92+111 — Chi Psi-*1648*

Smith, Rogers Phillip — Seattle, Wash. — Econ. 131+32 — DeltaKappaEpsilon

[4]Smith, Rose Marie — Santa Ana — Soc.S.-Jn. ‡ — Roble

Smith, Sanderson — Stanford Univ. — Engl. 107–*7* — 16 Branner-*678*

Smith, Seymour Purdon — Pacific Grove — Med. gr. — 243 Toyon-*2471*
A.B., Stanford, 1927

[124]Smith, Ward C. — St. Louis, Mo. — Geol. 170+170 — 314 Toyon-*1281*

[4]Smith, Weir G. — Stratford — Educ. gr. — 358 Kingsley, P-p
A.B., Fresno State Teachers College, 1928

[4]Smith, William B. — Twin Falls, Idaho — Educ. gr. — 149 Cowper, P-p
A.B., State College of Washington, 1915

[1]Snead, John L. Shaw, Jr. — Portland, Ore. — LD 14+9 — 251 Encina-*908*

[5]Snedden, Loring Bertram — Maricopa — Geol. gr. — 251 Hawthorne, P-p
A.B., Stanford, 1930

Snedden, Pauline K. — New York, N.Y. — Psych.180+100 — KappaAlphaTheta
A.B., Stanford, 1930

[4]Snell, Alice Esther — Hollister — Span. gr. — *221* Roble
A.B., San Jose State Teachers College, 1930

[4]Snell, James Lloyd — Hollister — Educ. gr. — 135 Toyon
A.B., San Jose State Teachers College, 1929

Snider, Earl Kirn — Fresno — Econ. 88·92+16 — Theta Chi-*1383*
A.B., Stanford, 1930

[13]Snodgrass, R. Gordon — San Luis Obispo — Econ. 5·172+164 — 248 Toyon-*1491*
A.B., Stanford, 1930

Snoke, Albert Waldo — Palo Alto — Med. gr. — *2255* Waverley, P-p
B.S., Washington, 1928

[234]Snow, Edwin Arthur — Boise, Idaho — Econ. 165+126 — 23 Toyon-*1045*

[5]Snyder, Edward Eugene — Burlingame — Chem. gr. — 1422 Cap'chino, B-b
A.B., Stanford, 1930

Snyder, Emma Jane — North Hollywood — LD 4·90+91 — 207 Roble-*5*

[5]Snyder, Evelyn Hamilton — Stanford Univ. — S.Biol. 10·160+79 — 542 Alvarado

[23]Snyder, Horatio Miles — Berkeley — LD 30+2 — 349 Encina-*845*

Snyder, Jack Crayton — Pasadena — Pre-Med.137+247 — PacificGrove-pg

[5]Snyder, John Calvert — Jackson — Law gr. — 8 Union-*601*
A.B., Stanford, 1929

[4]Snyder, Lucille Holbrook — San Jose — Educ.gr. 357E.SanFernando,SJ-sj
A.B., Stanford, 1925

Snyder, Rixford Kinney — San Jose — Econ. 182+234 — Bird, SJ-Bx 478,sj
A.B., Stanford, 1930

Snyder, Robert Jerome — Palo Alto — Law gr. — 635 Lowell, P-p
A.B., Stanford, 1929

Soares, Edward J. — San Francisco — S.Engr.14·180+54 — 204Sequoia-*967*
A.B., Stanford, 1930

Sobieski, John Gilhousen — Los Angeles — Law gr. — Sigma Alpha Eps.-*1305*
A.B., Stanford, 1928, J.D., 1930

[23]Soderberg, Kermit Joseph — Los Angeles — LD 69+12 — Sigma Chi-*628*

Soderstrom, Edwin Morris — Medford, Ore. — Med. gr. — 2319 Sacramento, SF-sf
A.B., Chicago, 1927

[5]Sokol, Anthony Eugene — Vienna, Austria — Germ. gr. — Menlo Heights
B.S., Mississippi State Teachers College, 1927; A.M., Stanford, 1930

[12]Solomon, John William — Los Angeles — Pol.S. 5·175+118 — Sig.Al.Eps.-*1305*
A.B., Stanford, 1930

[1]Solovey, Ephime N. Harbin, Manchuria S.Engr. ‡ 251 High, P-*2338*
[4]Somavia, Maria Eduarda Salinas Span. ‡ 351 Roble
Sorensen, Garfield Hilo, T.H. S.Engr. 173+36 312 Toyon-*1231*
[4]de Soto, Alex Phillips Centralia, Wash. Engl. gr. 560 Salvatierra-*1648*
A.B., Washington, 1928
[4]Southern, Clarence Edward Mesa, Ariz. Educ. gr. Beta Theta Pi
A.B., Evansville, 1927
[1]Sox, Harold C. Albany, Ore. Med. gr. 539 Lasuen-*2037*
A.B., Oregon, 1927
Spaght, Monroe Edward Eureka Chem. gr. 407 Sequoia-*1935*
A.B., Stanford, 1929
Spalding, Howard Francis Medford, Ore. Ec.-Ac.22·138+252 Th.D.Chi-*1828*
Spaulding, Catherine Mary Los Angeles LD 93+77 218 Roble-*1139*
[12]Spaulding, Neal Herrick SanBernardino Econ.102+19 AlphaTauOme.-*1384*
[4]Speaker, Lawrence M. Muskogee, Okla. Educ. gr. 828 Cowper, P-p
B.S., Springfield (Missouri) Normal, 1917; A.M., Chicago, 1923
[4]Spearman, Ethel Sanger Math. gr. 718 Bryant, P-p
A.B., Drury, 1921
Specker, Lewis Philadelphia, Pa. Med. gr. 2556 Pine, SF-sf
A.B., Pennsylvania, 1926
Speegle, Paul Lanz San Francisco Pol.S. 182+127 548 Alvarado
A.B., Stanford, 1930
Speers, Robert Dean Palo Alto Soc.S.-Jn. 194+126 Phi Kappa Psi
A.B., Stanford, 1930
Speik, Madeleine Lawton South Pasadena LD 47+90 108 Roble-*2527*
[12]Spencer, Allan Thomas Woodland LD 83+35 Zeta Psi-*B*
Spencer, Jean Stephen Houston, Tex. Geol. 79·39+10 Phi Kappa Psi-*697*
Spiekerman, Ernest T. The Dalles, Ore. LD 45+37 140 Encina-*2734*
[4]Spight, Julia B. Los Angeles Span. gr. 229 Roble
A.B., California at Los Angeles, 1927; A.M., Chicago, 1928
[23]Spinks, Alfred Bates Los Altos S.Biol.115+75 Los Altos-Bx*237*,la
Spinks, Charles Nelson Los Altos Hist. gr. Los Altos-Box *237*, la
A.B., Stanford, 1929, A.M., 1930
[23]Sponsler, Selden Ruger Palo Alto Chem. gr. 1143 Fulton, P-p
A.B., Mt. Holvoke, 1907; A.M., Michigan, 1914
Springer, James Milford Nice, France Pol.S. 180+64 Sigma Chi-*628*
A.B., Stanford, 1930
Squires, Leslie A. Philadelphia, Pa. LD 43+52 139 Encina-*2123*
Stadler, L. Stewart Helena, Mont. Econ. 140+67 311 Toyon-*1855*
[4]Stahl, Florence San Jose Educ. gr. 212 S. 11th, SJ-sj
A.B., San Jose State Teachers College, 1930
Stahle, Therice Henry Bountiful, Utah Law gr. 349 Hamilton, P-p
B.S., Utah, 1927
[4]Standley, Helene Nichols Palo Alto Educ. gr. 250 Byron, P-p
A.B., Wellesley, 1909
Stanford, Donald Elwin Stockton LD 42–8 23 Encina-*618*
[4]Stanford, Leland Ghent San Diego Law gr. Phi Delta Theta
A.B., Stanford, 1924, A.M., 1926
[34]Stanford, Lucina O. Fresno S.Biol. gr. Pacific Grove-pg
A.B., Fresno State Teachers College, 1928
[1]Stanley, Max Richard Santa Monica Econ. 21·100–25 207 Branner-*2607*
[4]Stansell, Sidney S. S. Sunnyvale Educ. gr. Sunnyvale-s
A.B., San Jose State Teachers College, 1928
Stanton, Cathrine Alice San Francisco LD 54+72 253 Roble-*1637*
[14]Starbird, George Albert King City Engl. 110+18 Chi Psi-*1648*
Starbuck, A. Franklin Whittier M.E. gr. 832 Kipling, P-*1432*
A.B., Whittier, 1928
Stark, Elverton Blakney Seattle, Wash. Soc.S.-Jn. gr. 433 Encina-*1573*
A.B., Puget Sound, 1929; A.M., Stanford, 1930

Starr, Theodore S. A.B., Stanford, 1930	Modesto	Pol.S. 90-90+61	Phi Sig. Kap.-*538*
Steacy, Hugh Wellington	Lodi	LD 41+36	139 Encina-*1135*
[4]Stearns, Ilo Cameron, Jr.	Brawley	LD	557 Lasuen
[5]Stearns, Muriel Imogene A.B., Stanford, 1930	Brawley	Hist. gr.	Chi Omega
[1]Stearns, Phillip A.	San Bernardino	Chem.100-46–9	44 Enc.Av.,P-*2205*
[1]Stebbins, Amelia Adams	Palo Alto	LD 0–13	262 Roble-*1437*
[4]Steel, David Clarke	San Francisco	LD	213 Union
Steele, Arthur Bruce A.B., Southern California, 1927	San Francisco	Med. gr.	593 Magellan, SF-sf
Steele, Warren Nelson, Jr.	Modesto	LD 85+41	113 Branner-*671*
Stein, Alden	Alhambra	LD 102+29	501 Encina-*576*
Stein, William C. A.B., Stanford, 1928	Los Angeles	Law gr.	319 Union-*1015*
Steinbeck, Stanford E. A.B., Stanford, 1930	Hollister	Econ. 7-177+119	244 Toyon-*2141*
Steiner, Arnold Byron	San Francisco	LD 74+124	103 Sequoia-*602*
Steinhart, Carl	Stockton	LD 26-98+31	130 Branner-*1235*
[4]Steinhart, Claire Hortense	Santa Clara	LD 86-54+44	1585 Fremont, SC-sc
Steinmetz, Harry Charles A.B., California, 1924; A.M., Southern California, 1927	Oakland	Psych. gr.	1759 Seminary, O-o
Sten, Marion O. A.B., Oregon, 1929; A.M., Stanford, 1930	St. Helens, Ore.	Soc.S.-Jn. gr.	373 Roble-*632*
[5]Stenz, Charles Joseph	Paterson, N.J.	Chem. 95-70+53	305 Lytton, P-p
Stephens, Bruce M. A.B., Stanford, 1927	Alameda	Med. gr.	916 Union, A-a
[5]Stephens, Jefferson Chandler	Los Angeles	Econ. 100–3	Delta Kappa Epsilon
Stephens, Trow Hendrick	Hollywood	Soc.S. 142+100	Alpha Delta Phi-*J*
Stephenson, Robert C.	Centralia, Wash.	Econ. 70-82–16	555 Encina-*901*
Stern, Charles, Jr. A.B., Stanford, 1930	Rochester, N.Y.	Hist. 90-97+65	134 Branner-*1468*
[234]Stern, Gwenyth Jean	Los Angeles	LD 30–1	152 Roble
Sterry, Lewis Trask	Los Angeles	LD 87+28	1566 Cowper, P-p
Stevens, Jay Wesley, Jr.	Piedmont	LD 42–17	316 Encina-*2532*
[4]Stevens, Lawrence Calvin	Piedmont	LD	111 Toyon
[4]Stevens, Ruth Miriam	Redwood City	LD ‡	320 Edgwood, RC-rc
Stevens, S. Smith	Palo Alto	Soc.S. 92-58+81	257 Byron, P-*2102*
[5]Stevenson, Richard Gray	Piedmont	Econ. 141+58	Delta Kappa Epsilon
[4]Stevenson, Robin Edwin	San Francisco	LD	130 Frederick, SF-sf
[4]Stevenson, Vernon L. B.S., Utah, 1930	Salt Lake City, U.	Educ. gr.	Beta Theta Pi-*1335*
[12]Stever, Manfred Raymond	Los Angeles	LD 30–13	333 Waverley, P-*1081*
Stevick, Donald Justin	Atherton	Hist. 119+13	Kappa Sigma-*1326*
Stewart, Donald Judson A.B., Redlands, 1927	Pasadena	S.Bus. gr.	435 Hamilton, P-p
Stewart, Edgar B., Jr. A.B., Stanford, 1930	Morgantown, W.Va.	Hist. 90-95+98	Del. Tau Del.-*1363*
Stewart, Frank	Torrance	LD 59+22	40 Encina-*1131*
[4]Stewart, George Sterling A.B., California, 1918	Palo Alto	Educ. gr.	251 Tennyson, P-p
[4]Stewart, I. Lucile A.B., San Francisco State Teachers College, 1929	Belmae Park	Educ. gr.	Belmae Park-Bx 146, bp
Stewart, James Z., III B.S., Utah Agricultural, 1928; M.B.A., Stanford, 1930	Logan, Utah	S.Bus. gr.	535 Encina
[1]Stewart, John Kenneth A.B., Stanford, 1930	Los Angeles	Econ. 180+106	Beta Theta Pi-*1335*

[4]Stewart, L. Lincoln A.B., Stanford, 1914	Sacramento	Geol. gr.	3545 T, Sacramento-s
Stewart, Richard Reginald A.B., Stanford, 1930	Santa Barbara	Span. 180+35	Alpha Delta Phi-*J*
Stille, Hans Eduard	Goettingen, Germany	Law gr.	202 Union-*1021*
[34]Stine, Oliver Charles	Saratoga	LD 59–24	Alpha Delta Phi-*J*
[23]Stitt, Philip D. A.B., Stanford, 1930	Los Angeles	Pol.S. 82·98+4	Al. Kap. Lam.-*658*
[12]Stockbridge, Elmer L. A.B., Stanford, 1930	Los Angeles	Econ. 54·126+16	113 Toyon-*618*
Stocktill, Ruth Henriette A.B., Stanford, 1929, A.M., 1930	Oildale	Fr. gr.	272 Roble
[14]Stockton, Philip Brent	Stockton	Econ. 98+34	208 Branner-*1354*
Stoddard, Kenneth Berkeley A.B., California at Los Angeles, 1928; A.M., Stanford, 1930	Los Angeles	Phys. gr.	574 Constanso-*582*
[4]Stone, Daniel James A.B., College of the Pacific, 1928	Stockton	Hist. gr.	521 Lasuen
Stone, Frederick Eaton A.B., Stanford, 1930	Porterville	Pol.S. 188+131	215 Toyon-*2141*
[4]Stone, Percy Gordon	Palo Alto	LD ‡	1952 Waverley, P-p
Storey, Herbert C.	Suisun	LD 89–6	1744 Cowper, P-p
Storey, Parnie Hamilton A.B., Stanford, 1928	Stanford Univ.	Med. gr.	739 Santa Ynez-*1606*
Storms, Allan Wenzel	Los Angeles	LD 64·45+63	Chi Psi-*1648*
Story, Donald Lee	Anderson	S.Engr. 134+51	240 Branner-*2668*
Story, George Watkins A.B., Stanford, 1930	Portland, Ore.	Soc.S.-Jn. 181+86	Delta Kap. Eps.
[2]Straley, Harrison W. A.B., Concord State Normal, 1923	Princeton, W.Va.	Min. gr.	615 University, P-p
[4]Strand, Fridtiof A. A.B., St. Olaf, 1923	Centerville, S.D.	Educ. gr.	557 Lasuen
[4]Strate, Katherine T.	Strathmore	Econ. ‡	369 Roble-*2397*
[2]Stratton, John Robert	Palo Alto	Pre-Med. 99·11–1	2315Cowper,P-p
[4]Straughan, Dorothy A.B., Oregon, 1928	Pendleton, Ore.	Educ. gr.	204 Roble
[124]Strauss, Richard Kenneth	Chicago, Ill.	Econ. 5·170+33	Sig. Al. Eps.-*1305*
Stromquist, C. Eben	Palo Alto	Soc.S. 140+77	609 Oregon, P-p
Strong, Charles H.	Tacoma, Wash.	LD 94+37	Sigma Alpha Eps.-*1305*
Strong, Kenneth Clark A.B., Stanford, 1927	San Francisco	Med. gr.	2351 Washington, SF-sf
Strong, Margaret Louise	Stanford Univ.	LD 44+38	672 Mirada
Strong, Marian	Los Angeles	Soc.S. 140+111	Pi Beta Phi-*1918*
[23]Strong, Winston Counter	Gresham, Ore.	LD 54·30+11	137 Encina-*623*
Strout, Miriam North	La Jolla	LD 94+49	353 Roble-*2433*
Strout, Ruth Louise	Alameda	Ed.-G.A. 9·117+4	Kap. Al. Theta
Stuart, Arthur Waters A.B., Stanford, 1930	Stanford Univ.	Hist.16·166+69	520Cowper,P-*1063*
[5]Stuart, Elizabeth	Alhambra	Soc.S. 122+117	DeltaGamma-*1366*
[1]Stubblefield, Howard Everett A.B., Stanford, 1930	Ontario	S.Engr.45·139+97	532 Homer,P-p
Studebaker, Leland F. A.B., Stanford, 1930	Ft. Dodge, Iowa	Pre-Clin.90·96+71	216 Union-*1591*
Stump, George Taft	Visalia	LD 92+46	221 Toyon-*2757*
[2]Sudden, Cecilia Frances	San Mateo	Econ.60·89–16	124WarrenRd.,SM
Suffel, George Shumway	Pasadena	S.Engr.11·135+140	319Squoa-*1056*
[12]Sullivan, Crawford J.	Los Angeles	LD 75+80	112 Toyon-*2577*
[234]Sullivan, J. Graham	Merced	Econ. 152+20	418 Florence, P

[4]Sullivan, William A.	San Francisco	LD	116 Toyon
Sullivan, Willis Eugene	Boise, Ida.	LD 95+79	Kappa Alpha
[4]Sullwold, George John	S. Pasadena	LD	134 Toyon
Sulzbacher, Carl Minor	Los Angeles	Econ. 129+43	Chi Psi-*1648*
Summers, Bert Orrell	San Jose	LD 43+26	137 Encina-*1711*
Sumner, Elizabeth Sarah	Palo Alto	LD 45·46+39	358 Roble-*142*
Sumner, Francis Holly	Palo Alto	LD 45·41+57	760 University, P-p
Sumner, Roger Wells	Pasadena	LD 91+26	200 Branner-*2342*
[4]Sumption, Helen Leila	Pasadena	Hist. gr.	1027 Bryant, P-p
A.B., Earlham, 1917; A.M., Wisconsin, 1923			
[12]Sun, Wei Ao	Kirin City, China	Min. gr.	549 Cowper, P-*1154*
B.S., National University of Peking, 1921			
Sun, Yu Chi	Harbin, China	Min. gr.	948 Ramona, P-*1142*
B.S., National University of Peking, 1921			
[4]Surryhne, Strobel Norwood	San Mateo	LD	138 15th, SM-sm
[5]Sutphen, Joseph W.	Los Angeles	Hist. 39·77–2	1566 Cowper, P-p
Sutro, Oscar	Piedmont	LD 92+46	Delta Chi-*1304*
[5]Sutro, Robert C.	Los Angeles	Econ. 94·46+40	613 Salvatierra
[5]Sutton, Harriet Edith	South Pasadena	Ed.-G.A. gr.	Pi Beta Phi-*1918*
A.B., Stanford, 1930			
Sutton, Herbert Bryan	Coolidge, Ariz.	Econ. 135+146	110 Branner-*1977*
[4]Suverkrup, Fred	San Bernardino	LD ‡	586 Lasuen-*1304*
[4]Swain, Genevieve Margaret	Santa Clara	Educ. gr.	611 Bryant, P-p
A.B., San Jose State Teachers College, 1928			
[1]Swain, Stanley Oliver	Sebastopol	Ed.-G.A. 83·93+17	320 Sequoia
[4]Swanson, Elsie H.	Campbell	Educ. ‡	264 Virginia, C-c
Swanson, Herman Eugene	Spokane, Wash.	S.Bus. gr.	1425 Alma, P-p
A.B., Idaho, 1927			
[1]Sweet, Dorothy Carol	Minneapolis, Minn.	LD 45+49	253 Roble-*2436*
Sweigert, Charles F.	San Francisco	Med. gr.	224 Cole, SF-sf
A.B., Stanford, 1927			
[1]Swen, Wen Yuh	Shansi, China	Food Res. gr.	Food Research Inst.
B.S., Nanking, 1924; A.M., Stanford, 1930			
[1]Swett, Theodore Moses	Portland, Ore.	Law gr.	210 Union-*2425*
A.B., Reed, 1926			
Swickard, Andrew Emerson	San Jose	M.E. gr.	333 Union
A.B., Stanford, 1928, Engineer, 1930			
Swift, Coe Tanner	Madera	LD 47+32	119 Encina-*902*
[4]Switzer, A. Irwin, Jr.	Spokane, Wash.	Educ. gr.	232 Union
A.B., Gonzaga, 1929			
[12]Sykes, Edward Christopher	Santa Barbara	Geol. gr.	173 Lytton, P-p
B.S., Harvard, 1929			
[1]Sylvester, Harold Frederic	Flint, Mich.	Pol.S. 90·15+5	MP-Box 42, mp
Tabb, Holmes Byron	Santa Maria	Econ. 90·41+31	448 Encina-*1403*
Tachibana, Jenshiro	Milwaukie, Ore.	LD 85–1	Japanese Club-*598*
[12]Taft, Alan C.	Palo Alto	Zoöl. gr.	1219 Fulton, P-p
A.B., Stanford, 1927, A.M., 1928			
Taft, Louise Swail	Pasadena	LD 94+166	Alpha Phi-*1387*
[234]Taft, Orray, Jr.	Santa Barbara	Pol.S. 152+5	563 Encina-*2763*
Tagert, Ivan Curtis	Menlo Park	Law gr.	Ringwood Rd., MP-*2495*
A.B., California at Los Angeles, 1927			
[4]Taggart, Harold Francis	San Mateo	Hist. gr.	565 Edgewood, SM-sm
A.B., Earlham, 1915; A.M., California, 1917			
[4]Tai, Li Sun	Kiangsu, China	Zoöl. gr.	Pacific Grove-pg
A.B., National Southeastern, 1925			
Takesaka, James Yoshito	Irvington	S.Engr. 48·98+137	Jap. Club-*598*
Talbert, Ernest William	San Jose	Engl. gr.	699 S. 9th, SJ-sj
A.B., San Jose State Teachers College, 1929			

Talbert, Ruth Hill — Monrovia — Med. gr. — Chi Omega
A.B., Mills, 1928
[4]Talbott, Frances Helen — Palo Alto — LD ‡ — 355 Seale, P-p
Tamada, Henry T. — San Jose — Pre-Clin. 90·124+146 — Jap.Club-*598*
A.B., Stanford, 1930
[13]Tandy, Ray Elmer — Long Beach — Hist. 120+61 — 13 Toyon-*1855*
Tanzey, Virginia Bruce — Kansas City, Mo. — LD 84+0 — Gamma Phi Beta-*1337*
Tarbell, Adah Marion — Sacramento — Bact. 54·81+8 — Sigma Kappa-*1327*
Targhetta, Paul Pierre — Alameda — LD 46+32 — 122 Encina-*2665*
Tarr, John Stockman — Tacoma, Wash. — LD 10·91+98 — 435 Encina-*1024*
[12]Tashjian, Harry Martin — Cutler — Econ. 59·121+1 — 224 Union-*1872*
A.B., Stanford, 1930
Tawney, Charles Albert, Jr. — Palo Alto — Econ. 90·93+150 — 435 Encina-*841*
A.B., Stanford, 1930
[1]Taylor, Edwin Paul — Missoula, Mont. — E.E. gr. — Portola-*522*
A.B., Montana, 1924
[4]Taylor, Ethel Anna — Los Angeles — Germ. gr. — Madroño
A.B., Michigan, 1906; A.M., Stanford, 1925
Taylor, Francis Howard — Troy, Pa. — LD 93+13 — 565 Salvatierra-*927*
[12]Taylor, H. Grant — Los Gatos — Educ. gr. — 418 Encina
A.B., San Jose State Teachers College, 1928; A.M., Stanford, 1929
Taylor, Harold Allen — San Jose — S.Engr.135·50+68 — 1202Shrtg,SJ-sj
[5]Taylor, Howard Story — Palo Alto — Min. gr. — 1211 College, M-*1485*
B.S., Michigan, 1928
[5]Taylor, James Ellery — Palo Alto — Zoöl. 6·115+30 — 547 Encina
[1]Taylor, James William Z. — Little Rock, Ark. — Engl. gr. — 526 Mayfield-*1279*
A.B., Furman, 1929
Taylor, John Owen — Kent, Wash. — LD 91+85 — 133 Branner-*1493*
[12]Taylor, Mark Lincoln — Long Beach — Econ. 180+41 — Sigma Chi-*628*
A.B., Stanford, 1930
Taylor, Marshall Kellogg — Burley, Ida. — Pol.S. 186+152 — 110 Toyon-*1218*
A.B., Stanford, 1930
Taylor, Perry Norman — Tulare — Geol. 48·121+26 — 13 Toyon-*2668*
Taylor, Robson Ewart — Phoenix, Ariz. — LD 93+16 — 215 Sequoia-*2736*
Teach, Kathryn — San Luis Obispo — Pre-Med. 7·140+146 — Chi Omega
[5]Teague, Charles McKevett — Santa Paula — Econ. 144+90 — Kingscote-*1481*
[4]Tebbetts, Frederick C. — Hollywood — LD ‡ — 538 Lasuen
Tempest, Roberta Marie — San Francisco — LD 49+75 — 356 Roble
Templeton, Robert Palmer — Portland, Ore. — Econ.132+112 — Alpha Sig. Phi-*1357*
[4]Tener, Estella B. Culp — Sonora — Educ. gr. — 436 Waverley, P-p
A.B., Humboldt State Teachers College, 1926
[4]Tener, James Harl — Bakersfield — Educ. gr. — 436 Waverley, P-p
A.B., National Normal University, 1907
Tennant, Alfred Edward — Colusa — M.E. gr. — 151 Melville, P-p
A.B., College of the Pacific, 1929
[4]Tenney, Cecilia Edith — Portland, Ore. — Fr. gr. — 536 Alvarado
A.B., Reed, 1919
[12]*Tenny, Stanley Warn — San Francisco — Pol.S. 45·76+68 — 136 Toyon-*1671*
[1]Terrill, Kenneth Stuart — San Francisco — LD 32–18 — Beta Theta Pi
Terrill, Robert Philip — Los Angeles — Econ. 141+119 — Chi Psi-*1648*
[4]Terry, Ulmer Neal — Twin Falls, Ida. — Educ. gr. — 205 Emerson, P-p
A.B., Spokane, 1920; M.S., Idaho, 1928
Terwilliger, Hal Rowe — Palo Alto — S.Engr. 189+234 — 575 Emb'ro, P-p
A.B., Stanford, 1930
[4]Terwilliger, Marion Pratt — Palo Alto — LD — 575 Embarcadero, P-p
Tesche, Elmer Fred — San Jose — Chem. gr. — 302 Sequoia-*1074*
A.B., Stanford, 1930

Teter, Myrtle P. Alba, Mo.
B.S., Missouri, 1920; A.M., Columbia, 1923
Teviotdale, David Jefferson Pasadena
A.B., Alberta, 1920, A.M., 1921
Thatcher, John Pemberton Reno, Nev.
A.B., Princeton, 1928
Thatcher, Ruth Clark Reno, Nev.
Thayer, Mary Gertrude San Diego
Thebaut, William Maxwell, Jr. Oakland
A.B., Stanford, 1929
Thigpen, William Rembert San Fernando
Thomas, Cyril Woodland
[5]Thomas, David Joseph Crockett
Thomas, Elbert G. Palo Alto
[4]Thomas, Faith Otha San Jose
A.B., San Jose State Teachers College, 1926
Thomas, Gale Folsom Fresno
[5]Thomas, Helen Loretta San Francisco
[234]Thomas, Helen Stanley Healdsburg
A.B., California, 1924
[5]Thomas, John Oglesby Menlo Heights
A.B., Stanford, 1928
Thomas, Joseph Daniel Hollywood
A.B., Stanford, 1927, LL.B., 1930
[5]Thomas, Lawrence Gregg Fresno
Thomas, Margery E. Stanford Univ.
Thomas, Max Spanish Fork, Utah
B.S., Brigham Young, 1929
Thomas, Robert Lancefield Portland, Ore.
A.B., Stanford, 1930
[5]Thomas, Robert Scofield Oakland
Thomas, S. Benson Mill Valley
A.B., Stanford, 1927, Engineer, 1928, Ph.D., 1930
Thomas, Starr Riverside
Thompson, Barbara Beach Palo Alto
Thompson, David M. Portland, Ore.
Thompson, Donald Ernest Red Bluff
A.B., Stanford, 1930
[1]Thompson, Dorothy Louise Burbank
A.B., California at Los Angeles, 1928
[4]Thompson, Elizabeth E. Red Bluff
Thompson, George P. Birmingham, Ala.
A.B., Stanford, 1929, Engineer, 1930
[5]Thompson, George Wylie La Canada
Thompson, Harold Vernon Fresno
[5]Thompson, Helen Anne Mill Valley
Thompson, Henry Royer Los Angeles
A.B., California at Los Angeles, 1928
Thompson, Henry Webb Glendale, Ariz.
A.B., Stanford, 1927
Thompson, James Greer Los Angeles
[13]Thompson, J. Finley Modesto
A.B., Stanford, 1929
[5]Thompson, Joseph Alden San Francisco
Thompson, M. Lewis Stanford Univ.
[12]Thompson, Richard Charles La Canada
[12]Thompson, Seton H. Seattle, Wash.
B.S., Washington, 1927, A.M., 1929

Educ. gr. 475 Forest, P-p

Econ. gr. DissRd.,P-Box545,R1,p

Law gr. Sigma Alpha Eps.-*1305*

Psych. 146+93 Kappa Alpha Theta
LD 89+17 Alpha Phi-*1387*
Med. gr. 448 Euclid, O-o

LD 64–13 Alpha Tau Omega-*1384*
S.Engr.90·49+38 218 Sequoia-*1905*
Econ. 18·101+15 611Waverley,P-p
Soc.S.-Jn. 87·70–7 PA-BoxR5D,p
Educ. gr. 1151 Settle, SJ-sj

S.Engr.90·41+22 234Branner-*1726*
LD 49+90 239 Roble-*2504*
Educ. gr. 85 S. 6th, SJ-sj

Zoöl. gr. Menlo Heights-*124*

Law gr. 309 Union-*1871*

Educ.30·137+159 Th.Del.Chi-*1828*
Soc.S. 104+76 Kap. Kap. Gamma
S.Bus. gr. 763 Homer, P-p

Pre-Clin.63·141+204 113Enc.-*2307*

Geol. 137+119 210 Branner-*930*
Chem. gr. 202 Sequoia

LD 93+113 Phi Kappa Sigma
Hist.103+77 KappaKappaGamma
LD 40–1 122 Encina-*2272*
Pre-Cl. 100·93+31 943Bryant, P-p

Hist. gr. 166 Roble-*2285*

LD 311 Roble
Min. gr. 656 Kingsley, P-p

Econ. 6·139+27 BetaThetaPi-*1335*
Hist. 90·47+72 418 Wvrly, P-*2464*
Engl. 159+137 Pi Beta Phi-*1918*
Psych. gr. 131 Lytton, P-Bx 842,p

Med. gr. 850 Powell, SF-sf

S.Engr. 7·147+21 Al. Del. Phi-*J*
Econ.-Acct. gr. 514 Encina-*1473*

Pol.S. 115+22 Phi Kappa Sigma
LD 92+66 203 Toyon-*1324*
LD 69+1 Beta Theta Pi-*1335*
Zoöl. gr. 340 Embarcadero, P-p

[4]Thompson, Signe Esther A.B., California, 1911, A.M., 1912	Oleander	Educ. gr.	1121 Bryant, P-p
[4]Thompson, Stanley I.	Centralia, Wash.	Educ. 135	Toyon-*1101*
[5]Thompson, Thomas Francis	Eugene, Ore.	Geol. 16·175+68	Kappa Sig.-*1326*
Thompson, Walter Theodore	Oakland	LD 70·50+32	401 Encina-*906*
Thompson, William Alexander	San Jose	LD 58+22	137 Encina
Thomson, Robert B. A.B., Stanford, 1929	Los Angeles	Law gr.	321 Mt. Diablo, SM-sm
[13]Thomson, Ruth Haines A.B., Pacific, 1917; A.M., Washington, 1921	Orange	Educ. gr.	615 University, P-p
Thorburn, Earle David	San Francisco	LD 62+70	303 Encina-*13*
Thorner, Juliet Emma	Santa Barbara	Pre-Med. 138+154	319 Roble-*2766*
Thornton, James William, Jr. A.B., Stanford, 1930	Livermore	Econ. 90·93+32	444 Florence, P-p
[5]Thornton, Norton Dolph	Palo Alto	Pol.S. 163+34	209 Homer, P-p
Thornton, Robert Yenney	Portland, Ore.	Soc.S. 95+80	237 Branner
[234]Thorpe, Katherine A.B., Stanford, 1929	Covina	Math. gr.	175 Roble-*555*
[4]Thorup, Richard R.	Salinas	LD	306 Union
[23]Throndson, Albert Harold	SanFrancisco	LD 42–3	429 Encina
Throndson, Edward Julian	San Francisco	Pre-Med. 5·170+109	PhiDel.Theta
Thurmond, Alfred Frank	Carpinteria	S.Engr.90·48+26	1001Ramona,P-p
[4]Tibbetts, Fred Lyman A.B., Oklahoma, 1916, A.M., 1919	Tulsa, Okla.	Educ. gr.	Stanford Univ.
Tickner, Boynton Bryan	San Francisco	Econ. 134+51	Beta Theta Pi-*1335*
[4]Timothy, Arthur C. A.B., San Jose State Teachers College, 1929	San Jose	Educ. gr.	854 S. 2nd., SJ-sj
[4]Timothy, Ralph Killion A.B., San Jose State Teachers College, 1929	San Jose	Educ. gr.	854 S. 2nd., SJ-sj
Ting, Peter Clare	Porterville	LD 110+39	123 Toyon
Tinsley, Ruth Elizabeth A.B., Stanford, 1929	Kansas City, Mo.	Psych. gr.	252 Kingsley, P-p
Tippett, George W. A.B., Stanford, 1929	San Francisco	Med. gr.	2645 Sacramento, SF-sf
[4]Titcomb, Edith Vivian A.B., San Jose State Teachers College, 1930	San Jose	Educ. gr.	1250 Magnolia, SJ-sj
[12]Titus, Donald	Staten Island, N.Y.	LD 28–22	365 Lincoln, P-p
[12]Titus, G. Woodruff	Pasadena	LD 48–14	Alpha Sigma Phi-*1357*
[12]Toalson, Norma Anne A.B., Stanford, 1929, A.M., 1930	Mexico, Mo.	Educ. gr.	Delta Delta Delta-*1325*
[12]Toberman, Homer M. A.B., Stanford, 1930	Hollywood	Econ. 180+9	Kappa Alpha
Tobin, James Leo A.B., Stanford, 1930	Butte, Mont.	Pre-Clin.135·49+1	173 Lytton, P-p
[4]Todd, Samuel Spaulding A.B., Stanford, 1927, Engineer, 1929	Arcata	Chem. gr.	207 Union-*2635*
[2]Todd, Walter Ernest A.B., Wesleyan, 1921	Menlo Park	Fr. gr.	Menlo Park-Box 416, mp
Toepke, William Point	San Mateo	LD 84+5	Delta Upsilon
Toll, Carroll C.	Glendale	LD 73+20	Beta Theta Pi-*1335*
[134]Tolman, Frank Bronson A.B., Stanford, 1925	Stanford Univ.	Geol. gr.	506 Mayfield-*830*
Tolman, John von Steen	Stanford Univ.	LD 46+33	15 Encina-*830*
Tomasini, Loring	Berkeley	Soc.S. 149+102	228 Toyon-*2665*
[5]Tomilin, Michael I.	Russia	Soc.S. 90·79+70	335 Lytton, P-*568*
[5]Tomlin, Frank Earl B.S., Boston, 1920; Ed.M., Harvard, 1922	Soochow, China	Educ. gr.	337 Kipling, P-*2203*

Tomlinson, Alfred T. A.B., Stanford, 1929	Santa Barbara	S.Bus. gr. 206 Union-*636*
[5]Tompkins, Grace Charlotte	Pasadena	Zoöl. 90·51+59 325 Roble-*2693*
Tompkins, Harold Phillip	Anaheim	Pre-Med. 90·33+3 446 Encina-*116*
[4]Tompkins, Louise	Sunnyvale	LD‡16+8 Sunnyvale-s
[4]Topping, William Keith	Pasadena	LD 109 Toyon
Torbert, Harold Chester A.B., Stanford, 1929	San Diego	Med. gr. 2321 Sacramento, SF-sf
[4]Tormey, Donald James A.B., Stanford, 1929	Spokane, Wash.	Educ. gr. 627 Homer, P
[4]Tormey, James Roland	San Jose	Educ. ‡ 664 S. 8th, SJ-sj
[4]Tormey, Rosemary	Spokane, Wash.	Ed.-G.A. ‡ 627 Homer, P
[1]Toropoff, George Walter	San Francisco	S.Engr. 90· 1750 Charleston, P
[4]Torrence, George Wallace	Yankton, S.D.	LD 735 Middlefield, P-p
[12]Torrence, M. Dean	Palo Alto	Econ. 127–10 Beta Theta Pi-*1335*
Tower, Myron F.	Lodi	Econ. 46·78+25 119 Toyon-*2488*
Towle, Philip H.	Woodland	LD 91+33 108 Branner
Townley, F. Jane	Stanford Univ.	LD 94+84 Delta Gamma-*1366*
Townsend, John Eugene	Berkeley	LD 77+8 Phi Kappa Psi
[4]Townsend, Walter Barton A.B., Cornell, 1921; M.S., 1926	Elmira, N.Y.	Educ. gr. 560 Salvatierra
Tracy, Ralph Levi, Jr. A.B., Stanford, 1930	Palo Alto	Bact. 21·167+21 357 Lytton, P-p
[4]Treat, David Brainerd A.B., Yankton, 1924	Phoenix, Ariz.	Engl. gr. 348 Kipling, P-p
Trigeiro, William Francis A.B., Stanford, 1930	Sebastopol	C.E. 195+51 306 Toyon-*907*
[4]Trimble, Martha M. B.S., Columbia, 1919	San Jose	Educ. gr. 845 Pershing, SJ-sj
Trimingham, James Whitney A.B., Stanford, 1929	Sunol	M.E. gr. 109 Sequoia-*984*
Triplett, William Robert A.B., Stanford, 1930	Sacramento	E.E. gr. 107 Sequoia-*86*
Triplett, William Thomas	Spokane,Wash.	LD 46+59 337 Encina-*1737*
[4]Trombetta, Julius C. A.B., Stanford, 1927	Ukiah	Educ. gr. 239 Toyon
[22]Tronslin, Cyril B.	Palo Alto	Econ. 90·75+36 360 Kingsley, P-p
Troth, Hubert Carlyle	Los Angeles	LD 88–1 20 Branner-*1000*
Trotter, John Sickles	Honolulu, T.H.	LD 86+32 Beta Theta Pi-*1335*
[4]Trotter, Joseph Trumbull	Pasadena	LD ‡ 250 Toyon
Troy, Dorothy A.B., Stanford, 1929, A.M., 1930	Fullerton	Hist. gr. 177 Roble
[4]Trumbell, Wilma Elwy A.B., Morningside, 1925	Belmond, Iowa	Engl. gr. PA-Rt. 1, Box 43G, p
[3]Tshu, Hak Hai	Swatow, China	S.Engr. 90·13–2 Chinese Club
Tsou, Pang Liang	Nanchang, China	Pol.S.90·46+21 520Salvatierra-*912*
Tuchler, Maier I.	San Francisco	LD 20·98+45 215 Branner-*891*
Tucker, Glen Otto	San Jose	Econ. 90·43+25 566 N. 16th, SJ-sj
Tudor, Thomas Hubbard	Santa Barbara	S.Engr. 110+4 105 Branner-*859*
[3]Tully, Dorothy Grace	Palo Alto	Fr. 104·30+29 154 Bryant, P-p
[4]Tupper, James Tullius	Fresno	LD‡13–3 11 Toyon
Turkel, Sigmund Ashur A.B., Stanford, 1929	Los Angeles	Med. gr. 2321 Sacramento, SF-sf
[12]Turner, Albert Hamlin	Campbell	Chem. 90·72–12 304 Sequoia-*1177*
[12]Turner, Betty	Oakland	LD 29+17 336 Roble-*2513*
[4]Turner, Cecilia Helen A.B., Washington, 1924	Everett, Wash.	Educ. gr. 218 Roble

Turner, Franklin Newhall A.B., California, 1926	Berkeley	S.Bus. gr.	1110 Waverley, P-p
[4]Turner, Helene Roberta A.B., Nevada, 1930	San Francisco	Educ. gr.	228 Roble
Turner, Ruby A.B., Vassar, 1929; A.M., Stanford, 1930	Lynn, Mass.	Econ. gr.	Madroño-*858*
Turnure, Dallas Richard	Portland, Ore.	Econ. 48·76+51·	Delta Chi-*1304*
[4]Tuttle, Cecil A. A.B., State College of Washington, 1929	Vancouver, Wash.	Educ. gr.	557 Lasuen-*1335*
Tway, Irwin Deering	Mesa, Ariz.	LD 43–7	308 Encina-*2313*
[4]Tweedy, Ira B.S., Idaho, 1911	Kellogg, Idaho	Educ. gr.	543 Lasuen-*2285*
Twelvetrees, John William, Jr.	La Canada	LD 48+14	348 Encina-*2262*
Twist, Gerald F. A.B., Stanford, 1930	Santa Ana	S.Engr. 88·93+47	Delta Upsilon
Tyler, Donald McLaren	Pasadena	Econ. 54·83+17	Delta Kappa Eps.
[12]Tyre, Norman Ronald A.B., Stanford, 1930	Los Angeles	Econ. 93·87+116	520 Encina-*2251*
Uhl, George Meredith A.B., Stanford, 1928	San Francisco	Med. gr.	2201 California, SF-sf
Ullmann, Helen Luscombe	Santa Barbara	LD 46+42	100 Roble-*2427*
[23]Ullmann, Henry J., Jr.	Santa Barbara	LD 24–10	330 Encina-*2427*
Ulrich, John Armond	Klamath Falls, Ore.	LD 43–2	405 Encina-*1831*
Ulrici, Dorothy Alma	Stockton	Hist. 23·124+143	476 Forest, P-p
Upton, John Roland A.B., Stanford, 1930	Galt, Ontario	Pre-Clin. 224+54	255 Toyon-*1613*
[4]Uriell, Vida Inez A.B., San Jose State Teachers College, 1928	San Jose	Educ. gr.	145 S. 17th, SJ-sj
[12]von Usedom, Liselotte A.B., Stanford, 1930	Sacramento	Pol.S. 90·92+69	Alpha Phi-*1387*
Usher, Edith Josephine	San Francisco	LD 45+34	264 Roble-*2516*
[12]Utt, Anita Lee	San Diego	Soc.S.45·80+43	Kappa Alpha The.
Utt, Jean Elizabeth	San Diego	Span. 135+92	Kappa Alpha Theta
Utter, John William, Jr.	Anaheim	S.Engr. 90·82+30	446 Encina-*1408*
Vahey, George A.B., Stanford, 1930	Berkeley	Pol.S. 181+68	139 Toyon-*1104*
Valentine, Edward Robinson A.B., Stanford, 1930	San Marino	Econ. 180+81	Alpha Delta Phi-*J*
[4]Vance, Una Ellen	Pueblo, Colo.	LD ‡	817 Cowper, P-p
Vanden Akker, Kryne A.B., Stanford, 1928, J.D., 1930	Los Angeles	Law gr.	Phi Gamma Delta
Vandermast, Newell Thompson	Santa Ana	LD 45+68	228 Encina
Vander Zwiep, Phillip James	San Francisco	Pre-Med. 149+81	212 Toyon-*514*
Van Deusen, Paul	Los Angeles	Econ. 96–12	Sigma Nu-*1385*
[23]Van Deventer, James Kendall	Long Beach	Pre-Med. 101·33+10	317 Seq.-*1811*
Van Duzee, Mabel A.B., Wellesley, 1922; A.B., Colorado, 1922	Boulder, Colo.	Engl. gr.	165 Roble-*1064*
Van Etten, Robert Briant A.B., Stanford, 1930	Oakland	Soc.S.-Jn. 182+161	240 Toyon
[1]Van Horn, Evelyn Adene A.B., Stanford, 1925	Denver, Colo.	Econ. gr.	Alpha Omicron Pi
[1]VanMeter, Maxwell J.	Norwalk	Fr. 90·55–10	323 Union-*146*
Van Norden, Margaret A.B., Stanford, 1930	Carmel	Fr. 7·173+214	Kappa Alpha Theta
Van Nuys, H. Alan A.B., Stanford, 1930	San Francisco	Psych. 183+34	214 Toyon-*2757*
[5]Van Patten, Dolores	Stanford Univ.	LD 39+8	579 Alvarado
Van Vleet, George	Fresno	LD 65·70+28	Kappa Sigma-*1326*

Van Zandt, A. Vernon A.B., Southern California, 1922	San Francisco	Med. gr.	2321 Sacramento, SF-sf
[4]Vasconcellos, John Bernard B.S., Santa Clara, 1926; A.B., San Jose State Teachers College, 1929	Irvington	Educ. gr.	Irvington-Box 42, i
[12]Vellenga, Peter E.	Sneek, Holland	Germ.68·73+8	553Salvatierra-*558*
Vernier, Helen May	Stanford Univ.	LD 47+31	257 Roble-*1425*
Vernier, Robert Louis	Stanford Univ.	LD 96+100	679 Mirada
Vessey, Ervin Reeve A.B., Stanford, 1930	South Pasadena	Econ. 135·46+16	251 Hwthrn, P-p
Vestal, Raymond George	Red Bluff	LD 45–2	110 Encina-*1602*
[23]Vice, Leslie Thomas	Vallejo	LD 85–4	130 Branner-*1171*
[5]Vickers, Russell Rogers	Palo Alto	Zoöl. 117·47+18	206 Hwthrn, P-p
[23]Viera, John Clifford	Mill Valley	LD 31+10	424 Encina
Viets, Henry E.	Long Beach	S.Engr. 36·106+35	Sigma Chi-*628*
Vigness, Paul Gerhardt A.B., St. Olaf, 1918; A.M., Stanford, 1924	Palo Alto	Hist. gr.	1144 Fulton, P-p
Vignolo, Caesar John	Raymond	Hist. 90·46+39	548 Alvarado-*713*
Vincenti, Louis Rudolph A.B., Stanford, 1928, J.D., 1930	Pasadena	Law gr.	330 Union-*H*
Visel, Wesley A.B., Stanford, 1930	Los Angeles	Econ. 180+67	Theta Chi-*1383*
Vogt, Paul Reuter	The Dalles, Ore.	LD 90+44	302 Sequoia-*61*
Voigt, Fred A.B., Stanford, 1930	San Francisco	Econ. 69·111+4	201 Toyon-*618*
Volonté, Mario Ambrose	S.San Francisco	LD 42·47+3	41 Encina-*1118*
Voorhees, Helen Bennett	Ross	Hist. 90·48+28	179 Roble-*2511*
Voorheis, Virginia Grace A.B., Stanford, 1929	San Francisco	Pol.S. gr.	607 Lasuen
Voris, Albert Travers	Petaluma	LD 43+65	304 Encina-*2611*
[4]Waage, John A.B., Luther, 1918; A.M., Stanford, 1928	Stanford Univ.	Educ. gr.	613 Salvatierra-*1260*
Wade, Robert David, Jr.	Laguna Beach	LD 45–11	125 Encina-*1813*
Waegele, Vera Carolyn A.B., Kansas, 1923	San Francisco	Med. gr.	3064 Sacramento, SF-sf
[3]Wagener, Winfield G. B.S., California, 1928, M.S., 1929	Palo Alto	E.E. gr.	430 Addison, P-p
[4]Waggoner, Charles Ilo A.B., California at Los Angeles, 1929	Phoenix, Ariz.	Hist. gr.	223 Union
Wagner, Charles Christian A.B., Stanford, 1928, M.B.A., 1930	Stockton	S.Bus. gr.	203 Toyon-*2592*
Wagner, Ernest Dean A.B., Stanford, 1928, J.D., 1930	Santa Barbara	Law gr.	146 Toyon-*2668*
Wagner, Fredricka Esther A.B., Nebraska, 1929; A.M., Stanford, 1930	Seward, Neb.	Germ. gr.	818 Cowper, P-p
Wagner, Robert Lowell A.B., Stanford, 1930	San Francisco	S.Biol. 203+72	Chi Psi-*1648*
[1]Waite, Russell Scott A.B., Stanford, 1928	Riverside	Econ. gr.	312 Sequoia-*2204*
[4]Wakefield, Burt Sidney A.B., Minnesota, 1898	Milwaukie, Ore.	Educ. gr.	Lytton Apts., P-p
[4]Walbridge, Thomas A. A.B., Stanford, 1917	Long Beach	Educ. gr.	160 Webster, P-p
Waldorf, Norman Omar A.B., Stanford, 1930	San Jose	Engl. 135·46+72	939 Villa, SJ-sj
[5]Wales, Joseph Howe	Palo Alto	Zoöl.44·119+28	1342Mdlefld,P-*641*
[23]Walk, Udell Clifford	Santa Rosa	LD 97+35	210 Toyon-*653*
[23]Walker, Edgar Lee A.B., Stanford, 1927	Wyatt, La.	Law gr.	706 Cowper, P-*2211*

[5]Walker, Edward E. Palo Alto Soc.S. gr. 446 Hamilton, P-p
B.S., Missouri State Teachers College, 1920; A.M., Missouri, 1923
Walker, Edwin Olen Wyatt, La. LD 65·31–5 329 Encina-*1931*
Walker, E. Wilfrid Ben Lomond S.Engr. 187+148 311 Sequoia
A.B., Stanford, 1930
[4]Walker, Flora Staten Island, N.Y. Educ. gr. 550 Salvatierra
A.B., San Jose State Teachers College, 1927; A.M., Stanford, 1929
Walker, Homer Carroll Beverly Hills Soc.S. 95·99+3 177 Bryant, P-p
A.B., Stanford, 1930
[5]Walker, James Eugene Los Angeles Law gr. 326 Emerson, P-*1681*
A.B., Stanford, 1930
[12]Walker,LawrenceAndrew Nome,Alaska LD 66–24 Sigma Chi-*628*
Walker, Mark A. Wichita Falls, Tex. Econ. 90·45–6 911 Bryant, P-p
[4]Walker, Minnie McLaughlin Willows Educ. gr. 536 Alvarado
A.B., Valparaiso, 1895
Walker, Ralph J. San Jose Med. gr. 2180 Washington, SF-sf
A.B., Stanford, 1929
Walker, Robert Hathaway Piedmont LD 40+51 323 Encina-*1149*
Walker, William Burgess Los Angeles LD 91+64 404 Sequoia-*1902*
Wallace, Frances Wolcott Phoenix, Ariz. LD 91+32 Kappa Alpha Theta
Wallace, Gale Douglas Piedmont Soc.S.-Jn. 143+33 238 Toyon
[4]Wallace, Glenn Irving Elma, Wash. Educ. gr. Sigma Alpha Epsilon
A.B., Northwest Nazarene College, 1925; A.B., Washington, 1928
Wallace, Lawrence Alma Oakland LD 44+46 315 Encina
[5]Wallace, Ralph Chester Oakland Econ. 168+181 241 Branner
Wallen, Jarvis Arthur Pacific Beach M.E. gr. Concha-*1434*
A.B., Stanford, 1928, Engineer, 1930
[4]Wallis, Jesse Irving Sacramento LD ‡ 1040 Ramona, P-p
Walls, William Lester Dayton, Wash. LD 49+46 39 Encina-*1733*
[5]Walser, Hester Hazel Palo Alto Span. 32·78+77 1430 Mdlefld, P-p
Walsh, Norman Edward Fresno Econ. gr. Theta Chi-*1383*
A.B., Stanford, 1930
Walsh, Raymond C. Fair Oaks S.Engr.90·91+96 107 Sequoia-*2148*
A.B., Stanford, 1930
Walters, Jack Davant San Diego LD 46·42+36 *227* Encina
Walters, Milas Erle Twin Falls, Ida. Ec.-Ac. 189+129 Sig.Al.Eps.-*1305*
A.B., Stanford, 1930
Walters, Morgan L. Rock Springs, Wyo. LD 50+34 351 Encina-*1158*
[23]Walton, Albert Palo Alto Psych. gr. 147 Emerson, P-p
M.E., Cornell, 1902; M.S., Washington, 1929
[5]Wang, Cheng Yunnan, China Econ. gr. Chinese Club-*2652*
A.B., Stanford, 1930
[12]Wang, Feng-Gang Honan, China Educ. gr. 528 Salvatierra-*813*
A.B., San Jose Teachers College, 1927; A.M., Stanford, 1928
Wang, Kan Shensi, China Econ. 90·15+0 637 Stanford, M-m
[23]Wang, Thom T. Kiangsi, China Educ. gr. 942 Ramona, P-*24*
A.B., National Central, 1927; A.M., Stanford, 1930
Wanless, John Fred Salt Lake City, Utah S.Engr. 137+76 *229* Branner-*2757*
[5]Ward, Harrell Law San Francisco Econ. 115+16 Sig.AlphaEps.-*1305*
Ward, Helen Thornton So. Pasadena Soc.S. 180+71 Pi Beta Phi-*1918*
A.B., Stanford, 1930
Ward, John Henry, Jr. Redlands Med. gr. 2321 Sacramento, SF-sf
A.B., Redlands, 1927
Ward, Leonard Harry Butte City LD 44–2 140 Encina-*1771*
[3]Ward, Mary A. San Francisco Educ. gr. 345 Forest, P-p
B.S., Columbia, 1925
[1]Ward, Robert William San Francisco Bact. gr. 1251 Hayes, SF-sf
B.S., St. Ignatius, 1928

Ward, Shirley C., Jr. Pasadena Law gr. 1630 Middlefield, P-p
A.B., California, 1929
[4]Wardell, Virginia Pauline San Francisco Engl. ‡ Coll.SacredHeart,MP-mp
Wardwell, Ralph Watts Bakersfield LD 86+15 Phi Sigma Kappa-*538*
[1]Wardfield, G. Richard Healdsburg Phil. 17·108–25 242 Branner
[12]Warkentin,Wilhelmina KansasCity,Mo. Psych. gr. 660 Salvatierra-*532*
A.B., Goucher, 1929
Warmke, Harry Earl San Jose S.Biol. 52·94+129 201 S.20th,SJ-sj
Warner, Clive Maples Maricopa Soc.S. 143+204 Delta Upsilon
Warner, Irwin Chauncey Riverside Econ. 184+104 211 Toyon-*575*
A.B., Stanford, 1930
[5]Warner, Stewart Clarke Riverside Econ. 50·85–9 Phi Delta Theta
[12]Warren, Harris Gaylord Kouts, Ind. Hist. gr. 1455 Cambridge,M-*2344*
B.S., Purdue, 1926; A.M., Stanford, 1930
[5]Warren, Isabell Modesto Educ. 102+150 Sigma Kappa-*1327*
Warren, William True Palo Alto LD 44+37 335 Encina
Washburn, Charles Lawrence Pasadena LD 27+8 204 Encina-*2662*
Washington, Lawrence Palo Alto M.E. gr. 544 Lowell, P-*504*
B.S., Massachusetts Institute of Technology, 1922
Watanabe, Lee Mitsuyoshi Fresno Med. gr. 1641 Sutter, SF-sf
A.B., Stanford, 1927
[3]Waterhouse, John C. Santa Cruz Geol. 90·14+7 105 Sequoia-*1572*
[4]Waterhouse, Richard S. Santa Cruz LD ‡ 226 Toyon-*1572*
[124]Watkins, Isabel Stanley Columbia, S.C. Educ. gr. Madroño
A.B., South Carolina College for Women, 1915; A.M., University of South Carolina 1923
Watkins, Robert P. San Francisco Zoöl. 5·180+176 610 Cabrillo-*2773*
A.B., Stanford, 1930
Watson, Albert John San Mateo LD 68+20 Phi Sigma Kappa-*538*
[2]Watson, Alfred Nelson Columbus, Ohio Math. 131·13–3 Theta Xi
[5]Watson, Campbell H. Beverly Hills S.Biol.54·102+29 BetaThe.Pi-*1795*
Watson, Elizabeth E. Piedmont LD 43+71 Roble-*2583*
Watson, Frances Rhodes Palo Alto Med. gr. 559 Tennyson, P-p
A.B., Stanford, 1927
Watson, George Elton Long Beach Phil. 135·45+40 538 Alvarado
A.B., Stanford, 1930
Watson, Mary Louise San Francisco Econ.135+13 KappaKappaGamma
Watson, Norman A. Urbana, Ill. Law gr. 229 Union-*533*
A.B., Illinois, 1929
Watt, Lucy Jeannette Oak Park, Ill. Anat. gr. Madroño-*1483*
A.B., Western College for Women, 1919; A.M., Syracuse, 1921
Watt, Tom McCourt San Francisco Pol.S. 146+37 Beta Theta Pi-*1335*
[4]Watzling, Gertrude May Medford, Ore. LD ‡ 284 Roble
[4]Way, Florence Ellen Riverside Engl. gr. 334 Cowper, P-*2646*
A.B., Nebraska State Teachers College, 1928
Way, Harold Franklin Petaluma Law gr. 166 Bryant, P-*1803*
A.B., Stanford, 1928, J.D., 1930
Way, Irene Lucile Petaluma Hist. gr. 384 Roble-*1803*
A.B., Stanford, 1929, A.M., 1930
[23]Way, John W., Jr. Pasadena Educ. 170+17 210 Sequoia-*21*
[23]Wayman, John E. W. Pasadena LD 43·45–5 Delta Kappa Epsilon
Weaver, Donald Bader Sacramento Phys. 90·90+84 *27* Encina Av., P-p
A.B., Stanford, 1930
[12]Weaver, John Carrel Stockton Econ. 122+1 Phi Kappa Psi
Weaver, Robert Crowell Spokane, Wash. LD 52+83 15 Forest Apts., P-p
Weaver, Sylva Titian Los Angeles Hist. 187+170 Kappa Kappa Gam.
A.B., Stanford, 1930

[4]Webb, Barton Le Edgar — Centerville — Educ. gr. — Centerville-Box 137, c
B.S., Kansas State Teachers College, 1927
Webb, Harrison James — San Francisco — S.Bus. gr. — 536 Alvarado
A.B., Stanford, 1929
[12]Webb, James Ruffin — Thermal — Econ. 12·168+31 — Al.TauOm.-*1382*
A.B., Stanford, 1930
Webb, Richard Fouke — Covina — LD 99+21 — Alpha Tau Omega-*1384*
Webb, R. Garn — Provo, Utah — Pol.S.131·50+6 — 506Mayfield-*2174*
A.B., Stanford, 1930
[4]Weber, Lillian G. — Modesto — Psych. ‡ — 331 S. 3rd, SJ-sj
[4]Webster, Dorothy Elizabeth — Oakland — Span. gr. — Roble
A.B., Stanford, 1927
Webster, George Estep — Oakland — Pre-Med. 90·48+51 — 205 Emrsn,P-p
Webster, George V., Jr. — Los Angeles — LD 80+10 — Kappa Sigma-*1326*
Webster, Gilbert William — San Francisco — LD 45+10 — 306 Encina
[13]Webster, J. Scott — Los Angeles — Econ. 180+54 — Phi Gamma Delta
A.B., Stanford, 1930
[1]Webster, James Ashley — Vallejo — Econ. 102+6 — 146 Toyon-*2668*
Webster, Roger Bertram — Stockton — Econ. 135·47+44 — 564 Encina-*1675*
A.B., Stanford, 1930
[5]Weck, Frank Alan — Oakland — Math. 139+32 — 331 Encina-*2334*
Weddle, Robert Parker — Parlier — LD 94+114 — 205 Sequoia
Weeks, Carrol Lamont — Los Angeles — Med. gr. — 2180 Washington, SF-sf
A.B., Stanford, 1929
[12]Weeks, Charles — San Francisco — LD 42·16–11 — 125 Encina-*1743*
[3]Weeks, Leslie Morehead — Grass Valley — LD 47+14 — 24 Branner-*6*
[4]Wees, Wilfred Rusk — Alberta, Canada — Psych.gr. — 1612California,M-*2797*
A.B., Alberta, 1923, A.M., 1926, Ed.B., 1928
Weesner, Charles Clifford — Piedmont — LD 97+38 — Alpha Tau Omega-*1384*
[12]*Wei, Ming Hua — Honan, China — Educ. 90·90+2 — 453 Princeton, M-m
A.B., Stanford, 1930
Weidlein, William Dale — Hays, Kans. — E.E. gr. — 1648 Calif., M-*1821*
B.S., Kansas, 1917
Weigle, Cyril G. — Lomita Park — Zoöl. 90·38–3 — 209 San Luis, LP-lp
[12]Weinberg, Laurence Milton — Los Angeles — Soc.S. 180+126 — 202 Branner-*91*
A.B., Stanford, 1930
Weinberger, Jacques — San Francisco — LD 47+29 — 358 Encina
Weinstein, Paula — Stockton — Math. 47·140+137 — 347 Roble-*2774*
A.B., Stanford, 1930
[234]Weinsveig, Mildred J. — Los Angeles — Germ. gr. — Madroño-*634*
A.B., California at Los Angeles, 1929
[5]Weisman, Theodore — Los Angeles — Law gr. — 759 Middlefield, P-*36*
A.B., Stanford, 1926
[234]Welch, Jerome — San Francisco — LD 52–12 — 633 Kellogg, P
[23]Weller, Fred A. — Palo Alto — Pol.S. gr. — 684 Columbia, M-*2042*
A.B., State College of Washington, 1925; J.D., Stanford, 1929
[4]Weller, George Carl — S. San Francisco — Educ. gr. — 500 Baden, SSF-ssf
A.B., Whitworth, 1920
Weller, Horace Alanson — Fort Bragg — LD 43–3 — 115 Encina
[4]Wellman, Levi Howard — Index, Wash. — Educ. gr. — 853 Homer, P-p
A.B., Indiana State Normal School, 1918; A.M., Indiana, 1922
Wells, Edward Curtis — Portland, Ore. — S.Engr. 93·49+75 — 424 Encina-*1097*
Wells, Ernest A. — Pasadena — Math. 3·137+154 — 210 Sequoia
[1]Wells, Gordon Herbert — Socorro, N.M. — Pol.S. ‡ 15–15 — 845 Waverley, P-p
Wells, John Emmet — El Centro — Econ. 136+95 — 223 Toyon
Wells, Phillip Hunt — Pasadena — Med. gr. — 2325 Sacramento, SF-sf
A.B., Stanford, 1929

Wells, Ruth A.B., Stanford, 1929	Pasadena	Med. gr.	2115 California, SF-sf
Wells, Walker Marshall A.B., Stanford, 1928	Selma	Pre-Med. gr.	1010 Waverley-*872*
[1]Wendell, Paul VanWagenen	LosAngeles	LD 59–6	Theta Chi-*1383*
Wendt, Albert Richard A.B., Stanford, 1930	San Jose	S.Engr.182+72	100N.Market,SJ-sj
Wendt, Douglas Dudley	San Jose	LD 47+38	145 E. San Carlos,SJ-sj
[5]Wenig, Herbert Edward	GreatNeck,N.Y.	Pol.S. 5·158+14	304 Toyon-*2376*
Wentworth, William Pond	Berkeley	LD 44+1	228 Encina-*2007*
Wentz, Kenneth Lee	Sunnyvale	Pre-Med. 135+63	Sunnyvale-s
Werder, William Maddux	Redwood City	S.Engr. 30·130+104	D.TauD.-*1363*
Werthman, Elizabeth Cecelia	Menlo Park	LD 87+12	Menlo Park-Bx 171, mp
Wessels, Arthur Lynn A.B., Stanford, 1929	Ukiah	Med. gr.	2180 Washington, SF-sf
West, Arnold J.	Aberdeen, Wash.	Econ. 125+10	Sigma Chi-*628*
[12]West, Catherine Campbell A.B., Stanford, 1930	Denver, Colo.	Hist. 9·171+165	Chi Omega
[12]West, Charles Emerson	Palo Alto	LD 95–28	660 Palo Alto,.P-p
West, Elizabeth Dearing	Denver, Colo.	Econ. 9·129+175	Chi Omega
West, George Lybrook, Jr.	Burlingame	LD 43·42+3	330 Encina
[23]West, Mildred Adele	San Mateo	LD 28–1	217 Roble-*853*
West, Nathaniel S.	San Francisco	Bact. 90·34–13	305 Sequoia-*1766*
[12]West, William Arthur	Camas, Wash.	LD 54–12	740 Santa Ynez-*574*
[1]Westheimer, Jerome	Ardmore, Okla.	Geol. 101+96	349 Hamilton, P
[13]Weston, Janet Louise A.B., Illinois, 1927, A.M., 1928	Champaign, Ill.	Econ. gr.	541 Salvatierra-*704*
[4]Weston, Ralph Emerson A.B., Stanford, 1922	Ontario	Math. gr.	234 Union
Westsmith, Richard Alan	Los Angeles	Pre-Med. 135+70	Phi Kappa Sig.
Weyl, Bertin, Jr.	Los Angeles	LD 91+72	112 Toyon-*1855*
Weyl, Edward M. A.B., Stanford, 1930	Los Angeles	Econ. 9·179+104	650 Clmbia, M-*25*
Weymouth, Frank William	San Francisco	Econ. 146+133	117 Toyon-*2001*
Wheatley, John Brooks A.B., Stanford, 1929, Engineer, 1930	San Francisco	M.E. gr.	Alpha Tau Omega-*1384*
Wheaton, Palmer A.B., Stanford, 1930	San Francisco	S.Engr. 180+18	Alpha Delta Phi-*J*
Wheeler, Ann Bradford A.B., Stanford, 1930	Redwood City	Fr. 36·145+17	Delta Gamma-*1366*
[5]Wheelis, John M., Jr. A.B., Stanford, 1928	Hollywood	Med. gr.	2325 Sacramento, SF-sf
[5]Whitaker, Joseph Eric A.B., Stanford, 1929	Palo Alto	Engl.-P.Sp. gr.	2245 Tasso, P-p
Whitaker, Virgil Keeble A.B., Stanford, 1929, A.M., 1930	Spokane, Wash.	Engl. gr.	438 Encina-*1503*
[1]White, Beatrice Mary B.A., London, 1923, M.A., 1926	Seven Kings, Eng.	Engl. gr.	660 Salvatierra-*1767*
[4]White, Bertha Deane A.B., Swarthmore, 1926	Atlantic City, N.J.	Engl. gr.	334 Roble
White, Douglas A.	Glendale	Econ. 160+7	Theta Del. Chi-*1828*
[5]White, Edward Arthur A.B., Stanford, 1928, A.M., 1929	Stanford Univ.	Hist. gr.	13 Union-*2772*
[13]White, Fillmore, Jr.	San Francisco	S.Engr. 113+39	The.Del.Chi-*1828*
White, George Clifford	Pasadena	S.Engr. 90·47+17	635Bynt,P-*2048*
White, George Russell	Hollywood	LD 72+39	Beta Theta Pi-*1335*
[1]White, George Willson	Gilroy	Econ. 90·	27 Encina Ave., P-p

White, Gordon A. Glendale LD 41+30 308 Encina-*1932*
[12]White, Henry Gordon Oakland Econ. 45·136+144 Phi Sig. Kp.-*538*
A.B., Stanford, 1930
[4]White, Hugh Vernon Stockton Phil. gr. 303 Union
A.B., California, 1917
White, Juanita Emilie Palo Alto Educ. gr. 195 Santa Rita, P-p
A.B., Stanford, 1929
White, Kenneth A. Glendale Econ. 132+30 Delta Upsilon
[234]White, Lois Aletha Covelo Econ.-Acct. 15·153+117 MP-*1954*
[1]White, Marvin Fred Lakewood, Ohio LD 16–1 Sigma Chi-*628*
White, Ralph Kirby Farmington, Mich. Psych. gr. 324 Union-*997*
A.B., Wesleyan, 1929
[1]White, Truman St. John Fresno LD 39–19 Theta Chi-*1383*
White, Willard E. Santa Ana Econ. 90·40+26 Delta Chi-*1304*
Whitecotton, George Otis Palo Alto Med. gr. 2201 California, SF-sf
A.B., California, 1923
Whiteley, Frank Adams Warren, Ariz. Soc.S.144+123 SigmaAl.Eps.-*1305*
[12]Whitesel, Jack Harry Los Angeles Econ. 13·168+255 Al.Kp.Lam.-*658*
A.B., Stanford, 1930
[4]Whitfield, George McCabe Tacoma, Wn. Educ. gr. 333 Portola, P-*1607*
A.B., Puget Sound, 1925
Whitney, George W. Palo Alto E.E. gr. Alma, P-Box 391, p
A.B., Stanford, 1930
[5]Whitney, Maxine D. Coeur d'Alene, Ida. Educ. gr. 167 Roble-*2443*
A.B., Oberlin, 1924; A.M., Stanford, 1930
[12]Whittern, Raymond Wesley Palo Alto S.Engr.105·13–13 219Hwthrn,P-p
[1]§Whomes, C. Arthur San Marino Econ. 135· 251 Hawthorne, P-p
[4]Wicks, Arthur Forrest Westport, Ore. Educ. gr. 1116 Bryant, P-p
B.B.A., Oregon, 1922
[1]Widmann, Charles A. Guatemala, C.A. Pre-Clin.139+92 450 Melville, P-p
Widmann, Homer Los Angeles Engl. gr. 804 Bryant, P-p
A.B., California at Los Angeles, 1926
[12]Widmer, Kurt Adolf Zurich,Switzerland S.Bus. gr. 715 Bryant, P-*1336*
Graduate, Neuchâtel, 1926
[4]Wiedman, Dueffort E. Bellingham,Wash. Educ. gr. Stanford Univ.
A.B., Colorado State Teachers College, 1918
[5]Wiedmann, Milton Laurence Palo Alto Phys. gr. 428 Guinda, P-*2637*
A.B., Stanford, 1925, Engineer, 1926
Wieser, Henry Emil Burlingame S.Biol. 90·94+91 817 Paloma, B-b
[4]Wiget, Ted Malcolm Walnut Creek LD 131 Toyon
Wight, Otis Martin Portland, Ore. Econ. 134+60 Zeta Psi-*B*
Wight, Vernon Jerome San Diego LD 76–10 1102 Ramona, P-*1401*
Wihr, Norman Lester San Francisco Zoöl. gr. 1976 21st Ave., SF-sf
A.B., California, 1928
Wilbur, Leonard Fisk San Francisco Med. gr. 1369 Hyde, SF-sf
A.B., Stanford, 1928
Wilbur, Ray Lyman, Jr. Washington,D.C. LD 46+25 123 Encina-*70*
[12]Wilcox, Floyd C. Battle Creek, Mich. Educ. gr. 1230 Parkinson, P-p
A.B., Kalamazoo, 1910; A.M., Columbia, 1921
Wilcox, Leland Ford Kimball, Neb. Engl. 91·96+29 762 Dolores
A.B., Stanford, 1930
[4]Wilcoxon, Benton Hartung Alta LD 114 Toyon
[4]Wild, Ruth Helen Chicago, Ill. Math. gr. 260 Roble
A.B., Wellesley, 1926
Wilde, Drummond Frank Piedmont Law gr. Delta Kappa Epsilon
A.B., Stanford, 1927, LL.B., 1930

§ Deceased, November 9, 1929.

Wilde, Thomas Edward A.B., Stanford, 1930	Sacramento	Chem. 90·95+61 303 Sequoia-*1230*
[4]Wilder, Floyd Ernest B.S., Dakota Wesleyan, 1919	Mountain View	Educ. gr. 513 Bush, MV-mv
[4]Wildesen, Martha V. A.B., Louisiana State Normal College, 1927	Douglas, Ariz.	Hist. gr. 251 Embarcadero, P-p
[4]Wiley, Will E. A.B., State College of Washington, 1920; A.M., Stanford, 1925	Lodi	Educ. gr. 1180 College, M-*1181*
Wilhelm, Keith Axtell	Golden, Colo.	LD 47–7 *762* Homer, P-p
[4]Wilhelmy, George Max	Sunnyvale	Educ. 87·61+29 122 Frances, S-s
[4]Wilkie, Bertha Helen A.B., Pomona, 1928	Pomona	Math. gr. Roble
Wilkins, F. Ellis	Sacramento	Econ. 90·36–6 435 Encina-*2563*
Wilkinson, Wilbur Ringo	Los Angeles	LD 89+5 Delta Upsilon
Will, Otto Allen	Colorado Springs, Colo.	LD 48+87 141 Toyon-*2521*
Willard, Don Gaylord	Tacoma, Wash.	LD 89+80 Phi Sigma Kappa-*538*
[4]Willard, Hilda	Red Bluff	LD ‡ Roble
Willard, William Raymond	Omaha, Neb.	LD 46+22 141 Encina-*2243*
[4]Williams, Alta A.B., Stanford, 1924	Long Beach	Psych. gr. 19 Berkeley, MP-*585*
Williams, A. Otis A.B., Stanford, 1930	Los Angeles	Econ. 181+35 Delta Tau Del.-*1363*
Williams, Ansel Smith A.B., Stanford, 1930	Stockton	Econ. 88·95+35 509 Encina-*1160*
Williams, Conger	Milwaukee, Wis.	LD 79+11 Kappa Sigma-*1326*
Williams, D. Harvey	San Francisco	S.Engr. 5·124+8 Theta Chi-*1383*
Williams, Dorothy Josephine	Santa Cruz	Pol.S.49·90+8 AlphaOmi.Pi-*1367*
Williams, Edwin Everitt	Blythe	LD 94+99 564 University, P-p
[1]Williams, Edwin Valentine A.B., Pomona, 1929	Azusa	Span. gr. 450 Encina
Williams, Eleanor Dearman	SanFrancisco	LD 49+77 354 Roble
Williams, E. Malcolm	San Francisco	Hist.90·47+21 2555 15thAve.,SF-sf
[4]Williams, Ernest Conklin A.B., San Jose State Teachers College, 1929	San Jose	Educ. gr. 824 S. 9th, SJ-sj
[4]Williams, F. Sunshine A.B., Stanford, 1927	Twin Falls, Idaho	Ed.-G.A. gr. 161 Roble-*1327*
[1]Williams, Gerald Arthur A.B., Stanford, 1929, A.M., 1930	Calexico	Educ. gr. 247Rmna.,Apt.6,P-*1983*
[12]Williams, Griffith Evan	The Dalles, Ore.	Pre-Med. 145+88 Sigma Nu-*1385*
[12]Williams, Harold Vernor	Santa Cruz	LD 24–15 141 Encina-*1673*
[1]Williams, John Francis A.B., Stanford, 1930	El Paso, Tex.	S.Engr.123·66+46 432Encina-*1624*
[4]Williams, John Morris	Douglas, Ariz.	Econ.100·66+25 KappaSigma-*1326*
[4]Williams, Muzetta A.B., Montana, 1924	Palo Alto	Educ. gr. 556 Lytton, P-p
Williams, Philip Daniel A.B., Stanford, 1930	San Diego	Phys. 190+232 736Webster,P-*1436*
Williams, Roger Alling	The Dalles, Ore.	LD 83–17 Sigma Nu-*1385*
Williams, Ruth Ellen A.B., San Jose State Teachers College, 1929	San Jose	Engl. gr. 824 S. 9th, SJ-sj
Williams, Sidney Weaver	San Francisco	Hist. 162+145 Alpha Phi-*1387*
[5]Williams, Stanwood I.	Los Angeles	Geol. 163+5 Alpha Delta Phi-*J*
Williams, Stephen A.B., Stanford, 1929, A.M., 1930	San Francisco	Hist. gr. 225 Sequoia
[5]Williams, Thomas Burton	Los Angeles	Geol. 137+21 313 Toyon-*531*
[23]Williamson, Alfred J.	Ontario	Soc.S.106·15+10 305Lytn,P-B245,p
[12]Williamson, Olga	Flint, Mich.	Psych. 93·33+49 369 Roble-*1443*

[4]Williamson, Oscar B. Long Beach Educ. gr. 213 Toyon
B.S., Oregon, 1923
Willis, Margaret Stanford Univ. Phil. 158+30 Pi Beta Phi-*1918*
[23]Wilmar, Fred Berkeley LD 77+29 553 Salvatierra
[5]Wilsey, Dane Maxfield Madison, N.J. Psych.120·45+56 257Byrn,P-B66,p
Wilson, Carl Robert Palo Alto Econ. 129+9 435 Tasso, P-p
Wilson, Donald Howard San Diego LD 43·43+41 127 Encina-*1731*
Wilson, Edward William Stanford Univ. Zoöl. 140+73 428 Encina-*717*
[134]Wilson, Elwood Jasper Stanford Univ. Law gr. 121 Toyon-*717*
A.B., Stanford, 1930
Wilson, Emerson J. Oakland Law gr. 736 Harvard, MP-*921*
A.B., Nevada, 1928
Wilson, Emmet Homer, Jr. Los Angeles LD 45+43 220 Encina-*2695*
[234]Wilson, Franklin T. Palo Alto Hist. gr. 758 Waverley, P-p
A.B., Fresno State College, 1930
[4]Wilson, George Zimmerman Petaluma LD 133 Toyon
Wilson, Jack Leroy Hollywood Ec.-Ac. 154+213 246 Toyon-*1433*
Wilson, Jesse Harris Santa Cruz Econ.114–10 ThetaDeltaChi-*1828*
Wilson, Josephine Marion Burlingame LD 44+6 237 Roble-*1973*
Wilson, Kenneth George Pasadena Econ.-Acct.90·49+60 446Enc.-*2341*
[12]Wilson, Lloyd Kenneth Newcastle Geol. 90·24–3 1425 Alma, P-*1727*
[4]Wilson, Marian Udall Pasadena Span. gr. 338 Roble
A.B., California at Los Angeles, 1927
Wilson, Pauline Cupertino LD 97+52 Kappa Kappa Gamma
[12]Wilson, Philip Louis, Jr. Los Angeles LD 76+57 Zeta Psi-*B*
Wilson, Robert Henry Burlingame Engl. gr. 1557 Ralston, B-b
A.B., Stanford, 1928, A.M., 1929
[12]Wilson, Robert Rogers Beverly Hills Geol. gr. 207 Union-*1289*
A.B., Yale, 1925; A.M., Stanford, 1930
Wilson, Thomas Strong Portland, Ore. Law gr. 556 Encina-*1246*
A.B., Princeton, 1927
[5]Wilson, Warner Montgomery Cupertino Econ. 120·56+3 Zeta Psi-*B*
Wilson, Warren Andrew Los Angeles Mil.S. 13·171+23 Al.TauOm.-*1384*
A.B., Stanford, 1930
[4]Wilton, Frank S., Jr. San Mateo Phys.Ed. gr. 339 Elm, SM-sm
A.B., Stanford, 1929
[4]Winchell, Karl F. Rock Springs, Wyo. Educ.gr. 1716Liberty,SntaClara-sc
A.B., Denver, 1914; A.M., Colorado State Teachers College, 1927
Wineberg, Dorothy Helen Evanston, Ill. Cl. Lit. gr. 368 Roble-*54*
A.B., Stanford, 1928, A.M., 1930
Wineberg, W. Alvin Evanston, Ill. LD 44+13 107 Encina-*827*
Winger, Raymond Ralph Whittier S.Engr. 102·65+1 Chi Psi-*1648*
Winkler, David P. Beverly Hills Engl. 90·48+37 Chi Psi-*1648*
Winkler, Merrick Peck Beverly Hills Econ. 180+16 Chi Psi-*1648*
A.B., Stanford, 1930
Winnek, Phil Stanley San Diego Chem. 151+195 Sigma Nu-*1385*
Winquist, Carl S. Chicago, Ill. S.Engr. 29·120+21 118 Toyon-*1863*
Winship, Elinor Estelle Freeport, N.Y. Engl. 96·43+56 369 Roble-*2453*
Winter, Max Los Angeles Econ. 180+80 Al.TauOmega-*1384*
A.B., Stanford, 1930
[4]Winterburn, John Charles Palo Alto Educ. gr. 175 Madroño, P-*991*
B.S., Pittsburgh, 1923
Winther, Oscar Osburn Eugene, Ore. Hist. gr. Union-*2025*
A.B., Oregon, 1925; A.M., Harvard, 1928
Winther, Reidar Long Beach LD 93+108 Alpha Sigma Phi-*1357*
[23]Winton, Harry N. M. San Francisco Hist. 125+162 215 Branner-*1204*
Wiper, Robert Wohlwend Bowbells, N.D. Econ. 135+30 145 Toyon-*2488*

Wiper, Thomas B. Bowbells, N.D. Med. gr. 2180 Washington, SF-sf
A.B., Arizona, 1924
Wirt, Sheldon K. Long Beach Med. gr. 321 Sequoia-*1282*
A.B., Stanford, 1928, A.M., 1929
Wise, Bertha Chico Fr. 133+123 282 Roble-*1974*
Wist, Edward Burton Alameda S.Engr. 122+66 210 Branner-*2354*
Witherbee, Orville Orvus Los Angeles Pre-Med. 132+51 Kappa Sig.-*1326*
[4]Withers, Edna F. Three Rivers, Mich. Educ. gr. 538 Alvarado
A.B., Michigan, 1926
[4]Witherspoon, Gertrude San Jose Educ. gr. 30 E. Empire, SJ-sj
A.B., San Jose State Teachers College, 1929
[4]Withey, Hettie Alice Ontario Hist.gr. 1425 Castillo,Brlngame-b
A.B., Stanford, 1913, A.M., 1914
[34]Witt, Shirley Mae Porterville Zoöl. gr. Pacific Grove-pg
A.B., Fresno State Teachers College, 1930
Wittausch, William Karl San Mateo S.Engr.89·91+21 328 Union-*1312*
A.B., Stanford, 1930
[1]Witte, Erwin F. H. Redwood City LD 53+44 266 Hopkins, RC-rc
Wittenau, Carl Warren, Ariz. Econ. 138+67 Kappa Sigma-*1326*
Wittenberg, Mary Edna Terre Haute,Ind. Fr. gr. 281 Roble-*2604*
A.B., Stanford, 1929
[23]Woehlke, Dorothea San Francisco S.Biol. 181+77 Delta Gamma-*1366*
Woelz, Paul Patrick Pittsburg LD 47·58+0 Theta Chi-*1383*
[5]Woerner, Louis Paul Palo Alto Germ. gr. 813½ Cowper, P-p
A.B., St. Mary's, 1923; A.M., Stanford, 1930
Wolcott, Alice Elizabeth Burlingame LD 22·91+55 249 Roble-*1227*
[5]Wolf, Joseph Julius San Francisco LD 34+14 364 Encina-*940*
Wolfe, Cameron Withgot Berkeley Pol.S. 132+205 Zeta Psi-*B*
Womack, Ellis Stanley Oakland Econ. 137+52 Kappa Alpha
Wong, Alfred K. Shanghai, China Med. gr. 56 Ross Alley, SF-sf
A.B., Stanford, 1927
Wong, Henry Oakland Econ. gr. Chinese Club-*1175*
A.B., College of the Pacific, 1928
[5]Wong, Kenneth Tsz Paan Canton, China Pol.S. 90·40+5 Chinese Club-*816*
Wong, Ming Yan Canton, China S.Engr. 105–4 746SantaYnez-*2165*
[2]Wong, Shui Lun Canton, China LD 5–11 Chinese Club-*1002*
[1]Wood, Burton Daniel Stanford Univ. Law gr. 555 Encina-*802*
A.B., Michigan State Normal, 1922; A.M., Stanford, 1925, LL.B., 1930
[4]Wood, Dale Thacker Ventura Educ. gr. 955 Addison, P
A.B., Redlands, 1926
[5]Wood, Dennistoun, Jr. Palo Alto Chem. gr. 809 Lincoln, P-p
A.B., Stanford, 1927, A.M., 1928
Wood, George Archie Gooding, Ida. Pre-Clin. 196+149 730 Gerona-*93*
A.B., Stanford, 1930
[5]Wood, Gerald Haworth Palo Alto Hist. gr. 1550·Webster, P-*2744*
A.B., Friends, 1925
Wood, Lewis Jeremiah Los Angeles LD 90+50 Phi Kappa Psi
Wood, Nellie Marian Los Angeles Med. gr. 3099 Washington, SF-sf
A.B., Stanford, 1926
Wood, Quentin Lee Seattle, Wash. LD 92–3 Phi Gamma Delta
[23]Wood, William Almon, Jr. Oakland LD 30+32 118 Encina-*2036*
[4]Woodard, John Albert Bozeman, Mont. Educ. gr. 2420 Tasso, P-p
A.B., Nebraska, 1909
Woodhouse, Edwin Deshler Palo Alto Bot. gr. 570 Amherst, M-*1210*
B.S., California, 1919; A.M., Stanford, 1929
[5]Woodruff, Neville Ernest San Francisco Econ. 88·79+8 Kappa Alpha
Woods, Ward Wilson Oakland LD 93+121 Delta Upsilon
[4]Woodward,KatharineB. Portsmouth,Va. Span. gr. Madroño
A.B., Vanderbilt, 1919

Woodworth, Denny	San Francisco	LD 92+53	740 Santa Ynez
Woodworth, Edwin Balla	Los Altos	LD 44+11	LA-Box75, la
Woodworth, Horace Towne	Lodi	LD 48·45+42	Delta Kappa Epsilon
Woodyatt, Daniel B.	Palo Alto	S.Engr.127+3	1425 Stanfd,P-*1128*
Woodyatt, Elizabeth	Palo Alto	Engl. 182+116	1425 Stanfd,P-*1128*
A.B., Stanford, 1930			
Woolf, Loren Ambrose	Red Bluff	LD 46+31	110 Encina-*1546*
Wooliever, Francis J.	San Francisco	LD 46+2	*32* Encina-*516*
[1]Woolley, Eola Claire	New Orleans, La.	Phyl. gr.	616 Forest, P-p
A.B., Tulane, 1926; A.M., Stanford, 1928, Ph.D., 1930			
Woolsey, Elwood L.	Berkeley	Bact. 99·81+62	531 Hanover, M-*20*
A.B., Stanford, 1930			
[4]Wooster, Earl	Winnemucca, Nev.	Educ. gr.	2351 Tasso, P-p
A.B., Nevada, 1921			
[5]Wooster, Lyman Dwight	Hays, Kans.	Zoöl. gr.	700 Amherst, M-*1862*
A.B., Kansas State Teachers College, 1911; Ph.M., Wisconsin, 1919			
[12]Wooster, Ruth Constance	Cupertino	Chem. gr.	*271* Roble-*1126*
A.B., Stanford, 1927, A.M., 1930			
Wootan, John Thomas, Jr.	San Gabriel	S.Engr. 101–5	Sigma Chi-*628*
[124]Worden, Richard Carl	San Jose	Educ. gr.	41 S. River, SJ-sj
A.B., Stanford, 1930			
Work, John Franklin	Pacific Grove	Econ. 15·165+140	Theta Xi
A.B., Stanford, 1930			
[4]Wormser, Robert	Santa Barbara	Educ. gr.	1400 Waverley, P-p
A.B., Harvard, 1922			
Worsley, Wallace Ashley, Jr.	LosAngeles	LD 90–5	Theta Xi
[5]Worthington, Frances Lyman	Thermal	Engl. gr.	Alpha Omicron Pi-*1367*
A.B., Stanford, 1929, A.M., 1930			
Wotring, Ellsworth M.	Long Beach	Econ. 183+248	125 Branner-*1405*
A.B., Stanford, 1930			
Wren, Robert M. W.	Auburn	Pol.S.11·146+147	214Sequoia-*2372*
Wrenn, Charles Gilbert	Salem, Ore.	Educ. gr.	1641 California, M-*2712*
A.B., Willamette, 1926; A.M., Stanford, 1929			
Wright, Alvah Bruce	Globe, Ariz.	LD 91+162	*207* Sequoia-*1883*
Wright, Bernice Margaret	Pasadena	Soc.S. 87·45+77	Pi Beta Phi-*1918*
[1]Wright, Calvin Everett	Burley, Ida.	Soc.S. 97·83+48	*23* Toyon
A.B., Stanford, 1930			
[4]Wright, Chester C.	Rupert, Idaho	S.Biol. gr.	Pacific Grove-pg
S.B., Idaho, 1923			
Wright, Editha F.	San Francisco	Med. gr.	565 Salvatierra-*1817*
A.B., Stanford, 1929			
Wright, Muirson C.	Oakland	Econ. 183+42	Theta Chi-*1383*
A.B., Stanford, 1930			
Wright, Richard Ewing	San Luis Obispo	Chem. 146+205	248 Toyon-*1764*
[32]Wright, Robert C.	Sydney, Australia	LD 17–2	1015 Forest, P-p
Wright, Whitney Jones	San Jose	Econ. 5·135+72	Theta Chi-*1383*
[5]Wu, Chi-Yi	Kiangsi, China	Pol.S. 90·55+31	520 Slvtra-*2722*
Wu, Shu-Pan	Tientsin, China	Educ. gr.	*269* Roble-*894*
A.B., Stanford, 1929, A.M., 1930			
[134]Wulzen, Richard Henry	San Francisco	LD 78+43	Delta Tau Delta-*1363*
[5]Wyatt, Dorothea Edith	San Francisco	Hist. gr.	*366* Roble-*977*
A.B., Stanford, 1930			
Wyatt, Francis O.	Redwood City	Hist. 90·60+47	533 Encina
[5]Wyckoff, James Allen	Watsonville	Law‡51+38	1630 Middlefield, P-p
Wyman, Elliott Sherwood	Glendale	LD 46·45+10	*229* Encina
[5]Wynn, Carol Glenn	Pasadena	Law gr.	Phi Delta Theta
A.B., Stanford, 1928			
Wynne, David Evans	Ontario	Hist. 90·92+106	Kingscote
A.B., Stanford, 1930			

Yamautsuri, Sadaakira	Tokyo, Japan	Pol.S. 135·30–2	Japanese Club-*598*
Yarnell, George Alfred	Palo Alto	S.Engr. 5·142+24	567 Lincoln, P-p
[4]Yates, Charles Dennis	Kellogg, Idaho	Educ. gr.	543 Lasuen
A.B., Otterbein, 1911; M.S., Idaho, 1927			
[1]Yeazell, Edward Campbell	San Francisco	LD 87+5	Alpha Tau Omega-*1384*
Yeazell, Frances	Sausalito	Soc.S. 9·173+110	Delta Gam.-*1366*
A.B., Stanford, 1930			
Yeomans, Helen Eva	Spokane, Wash.	Cl.Lit. 15·179+345	671Sta.Ynez-*33*
A.B., Stanford, 1930			
Youd, James T.	Merced	M.E. 180+90	MenloSch.,MP-*1141*
A.B., Stanford, 1930			
Young, Barbara	Sacramento	Hist. 69·84+117	Alpha Phi-*1387*
Young, Charles S., Jr.	San Francisco	LD 37–23	248 Encina-*1992*
Young, Forrest Orville J.	Redlands	Med. gr.	Sutter Hosp., SF-sf
A.B., Redlands, 1926			
Young, Graham Temple	Glendale	Econ. 134+54	Delta Upsilon
[23]Young, Hobart Nading	Berkeley	Soc.S. gr.	Union-*46*
A.B., California, 1926			
[4]Young, J. Paul	Hughson	Pre-Med. ‡	Pacific Grove-pg
Young, Min-Chi	Shensi, China	Psych. 90·32+3	637Stanford,M-m
[12]Young, William Francis	Baldwin Park	Geol. gr.	832 Kipling, P-*1532*
A.B., Whittier, 1929			
[4]Youngquist, Charles Seth	Madison, Wis.	Educ. gr.	435 Hamilton, P-p
A.B., Wisconsin, 1923			
[5]Youngreen, Donald Rodford	Upper Lake	Econ. 5·172+23	202 Sequoia
Younkin, Daniel G.	Tempe, Ariz.	Educ. gr.	627 Emerson, P-p
B.S., Arizona, 1924, A.M., 1925			
[23]Younkin, Fay Lucile	Palo Alto	Educ. gr.	627 Emerson, P-p
A.B., Tempe Teachers College, 1929			
Yu, Shin Cheng	Shantung, China	Pol.S.135·26–20	327 Cowpr,P-*1127*
Zandmer, Herbert M.	Los Angeles	S.Bus. gr.	505 Encina-*2827*
A.B., Stanford, 1928, M.B.A., 1930			
[4]Zannon, Fred Arlington	Roseville	Educ. gr.	248 Toyon
A.B., Chico State College, 1930			
Ziegler, James Edwin, Jr.	San Francisco	Pre-Med. 107+31	541 San Juan
Zimmerli, Katherine J.	Pittsburgh, Pa.	Engl. 135·39+7	317 Roble-*983*
Zimmerman, Arden David	San Jose	S.Engr.135·47+47	146N.16th,SJ-sj
Zipf, Albert Fairfield	San Francisco	LD 93+122	Sigma Nu-*1385*
Zitkowski, Dorothy Verges	Denver, Colo.	Ed.-G.A. 135+222	Kp.AlphaTheta
[1]Zitkowski, Frederick A.	Oxnard	Law gr.	503 Encina-*1855*
A.B., Stanford, 1928, J.D., 1930			
[5]Zoffman, George Emmet	San Francisco	LD 32–11	115 Encina-*115*
Zombro, Fred Bicknell	Los Angeles	Med. gr.	2201 California, SF-sf
A.B., Stanford, 1929			
Zschokke, Arthur Jacob	Palo Alto	M.E. gr.	526 Forest, P-p
A.B., Stanford, 1902, Engineer, 1930			
[1]Zschokke, Theodore O.	Palo Alto	LD 129+85	316 Sequoia
Zuger, Arthur Fred	Waitsburg, Wash.	Econ. 90·46+3	Theta Chi-*1383*
Zumwalt, Fred H., Jr.	San Francisco	LD 45+3	357 Encina-*1306*
Zumwalt, Margaret J.	San Francisco	Phil. 180+174	Chi Omega
A.B., Stanford, 1930			
[5]Zwick, Charles Law	Oxford, Ohio	Soc.S. 112·63+17	502 Encina

SUMMARIES

OFFICERS

Trustees	15
Academic Council—rank of	
Professor	171
Associate Professor	67
Assistant Professor	31
Total (less 8 absent on leave)	261
Other Teaching and Administrative Officers—rank of	
Emeritus Professor	32
Clinical Professor	10
Associate Clinical Professor	21
Assistant Professor	36
Assistant Clinical Professor	19
Lecturer	30
Instructor	68
Clinical Instructor	46
Associate	11
Administrative Officer	81
Total (less 9 absent on leave)	345

Assistants

	At Stanford	At San Francisco	
Instruction	110	53	163
Research	39	5	44
Technical	78	..	78
Administration	96	26	122
Library	25	3	28
Total			435
Grand Total			1056

STUDENTS

	Autumn	Winter	Spring	Summer	For the year
Graduates	849	842	822	715	1530
Undergraduates	2700	2606	2440	545	3103
Special Students	7	4	5	2	8
Total	3556	3452	3267	1262	4641

BY MAJOR SUBJECTS

	Graduate	Undergraduate	Total
Biological Sciences, School of	19	27	46
Anatomy	2	—	2
Bacteriology	11	17	28
Botany	13	5	18
Physiology	3	7	10
Pre-Medical	5	98	103
Pre-Nursing	—	2	2
Zoölogy	27	25	52
Business, Graduate School of	67	—	67
Education, School of	—	—	—
Education	402	52	454
Graphic Art	11	18	29
Engineering, School of	—	236	236
Civil	12	6	18
Electrical	25	—	25
Mechanical	25	5	30
Military Science	—	6	6
Mining	17	—	17
Food Research	1	—	1
Law, School of	217	10	227
Letters, School of	—	6	6
Classical Literature	15	6	21
English	80	61	141
Public Speaking	11	23	34
Germanic Languages	17	6	23
Romanic Languages	—	—	—
French	14	17	31
Spanish	26	22	48
Slavic	—	1	1
Lower Division (including 8 special students)	—	1235	1235
Medicine, School of	156	—	156
Pre-Clinical	—	36	36
Public Health	1	—	1
Physical Education and Hygiene	5	—	5
Physical Sciences, School of	—	2	2
Chemistry	68	56	124
Geology	27	45	72
Mathematics	25	11	36
Physics	15	9	24
Social Sciences, School of	11	118	129
Economics	45	544	589
Accountancy	2	26	28
History	68	115	183
Journalism	7	46	53
Philosophy	3	24	27
Political Science	42	151	193
Psychology	34	36	70
Sociology	1	1	2

BY RESIDENCE

California	3496	Massachusetts	10	China	70
Oregon	141	New Jersey	10	Hawaii	24
Washington	124	South Dakota	10	Japan	14
Arizona	74	Washington, D.C.	7	Philippine Islands	13
Idaho	53	Wisconsin	7	Canada	11
Utah	51	Louisiana	5	Alaska	5
Illinois	44	North Dakota	5	Australia	3
Colorado	41	Alabama	4	England	3
Texas	40	Arkansas	4	Brazil	2
New York	35	Virginia	4	Canal Zone	2
Montana	34	West Virginia	4	France	2
Ohio	30	Florida	3	Holland	2
Oklahoma	27	Kentucky	3	Mexico	2
Missouri	23	South Carolina	3	Peru	2
Nevada	21	Tennessee	3	Russia	2
Kansas	19	Georgia	2	Switzerland	2
Michigan	18	Maine	2	Austria	1
Iowa	17	North Carolina	2	Central America	1
New Mexico	17	Rhode Island	2	Chile	1
Minnesota	16	Connecticut	1	Colombia	1
Nebraska	16	Maryland	1	Germany	1
Wyoming	16	Mississippi	1	India	1
Pennsylvania	15	New Hampshire	1	Porto Rico	1
Indiana	11	Vermont	1	Spain	1

STANFORD ALUMNI ASSOCIATION

CONSTITUTION

Adopted June 21, 1924

The Stanford Alumni Association is organized to promote the common interests of Stanford, its graduates and former students, as represented by the activities of the University.

ARTICLE I: MEMBERSHIP

SECTION 1.—Any person who has been a registered student of Stanford University is eligible for membership in this Association, and may become a member by payment of the annual dues; *provided, however, that only members who have received a degree, or who have been in residence at Stanford University for a period equivalent to at least six quarters and who have withdrawn in good standing shall be eligible to any elective office in this Association.*

SEC. 2.—All members of the faculty of Stanford University are honorary members of this Association.

ARTICLE II: OFFICERS

SECTION 1.—The officers of this Association shall be the Alumni Council, consisting of nine elected members, three of whom shall be graduates of not less than ten years' standing; three of whom shall be graduates of not less than five years' standing; and three from any class as may be selected by the nominating committee, and who shall be elected for three-year terms with terms so arranged that but three members will retire in any one year; provided, however, that the members of the Advisory Board now in office, whose terms have not expired, and those elected in June, 1924, shall remain in office for the term for which they have originally been elected; one representative, elected by each graduating class, whose term shall be one year after graduation; and one representative from each local alumni club now organized or which may be hereafter organized with the approval of the Association and having a membership in good standing of at least one hundred graduates or former students, and for each additional one hundred like members in good standing the alumni club shall be entitled to one additional representative. The University Alumni Secretary shall be *ex officio* a member of the Alumni Council.

The club representatives shall be elected annually by the respective clubs. On or before June 15 of each year, the several clubs shall furnish the Secretary of the Alumni Association with the name of the representative or representatives chosen for the year beginning September 1.

SEC. 2.—The Alumni Council shall have general charge of all the affairs of the Alumni Association and the management of all its funds and properties. It shall have full power, and it shall be its duty to carry out the purposes of the Association according to the articles of the Association.

SEC. 3.—The Alumni Council shall elect: (1) a President; (2) a Vice-President; (3) a Secretary-Treasurer, and (4) an Executive Committee. These officers shall be selected from, and the committee composed of, the nine elected members of the Council and the University Alumni Secretary, and shall be elected annually at the first regular meeting of the Council.

ARTICLE III: DUTIES OF OFFICERS

SECTION 1.—It shall be the duty of the President to preside at all business meetings of the Association; to submit for the Alumni Council an annual report of the affairs of the Association; and to perform such other duties as usually belong to this office. The President shall be *ex officio* member of all committees.

SEC. 2.—It shall be the duty of the Vice-President to preside in the absence of the President, and to perform all other duties belonging to this office.

SEC. 3.—The Secretary-Treasurer shall keep the minutes of all meetings of the Association and of the Executive Committee; shall have the custody of all the books and papers; shall collect the fees and dues of members, and all moneys due or coming to the Association, and shall pay the same over to the bank or depositary of the Association. He shall disburse the funds of the Association under the direction of the Executive Committee. He shall keep the records and conduct the general correspondence of the Association, and make such reports to the Alumni Council as may be requested. He shall be *ex officio* member of all committees.

SEC. 4.—The Executive Committee shall have all the powers of the Alumni Council when the Council is not in session, unless the Alumni Council shall, by a vote of two-thirds of those present, reserve certain powers unto itself. It shall be the duty of the Executive Committee: (1) to regulate the finances of the Association; (2) to pay the Secretary-Treasurer an adequate salary for services performed; (3) to direct the publication of the *Stanford Illustrated Review,* employing the editorial staff and supervising the general policy of the *Review;* (4) to have the accounts of the Association audited at least once each year and report the audit to the Association; (5) to fill, for the unexpired term, all vacancies occurring by death, resignations, or otherwise; (6) to arrange for the program presented on any public occasion for or by the Association; (7) to perform such other duties as may be imposed upon it by the Council; (8) to attend to all the business of the Association not otherwise provided for in this constitution; (9) to canvass and secure recommendations from the local alumni clubs for candidates to be nominated for the Stanford National Board; (10) to appoint alumni members of the Board of Athletic Control, Union Board, or other boards or committees that the Alumni Association has authority to select, or desires to appoint; (11) to consult the alumni, undergraduates, faculty, and trustees, when it deems it advisable, in order to make recommendations regarding the welfare of the University and of the Alumni Association.

ARTICLE IV: DISTRICT DIVISIONS

SECTION 1.—In order to bring the local alumni clubs and the general Alumni Association into closer relationship, the territory covered by alumni clubs shall be divided into twenty-two districts by the Alumni Council, as follows: (1) The Pacific Northwest; (2) the Southwest; (3) Central Mountain States; (4) Middle West; (5) Lake Region; (6) New England; (7)

New York; (8) Middle Atlantic States; (9) the South; (10) Hawaiian and Philippine Islands; (11) Foreign Countries; and in California, a district corresponding with each Congressional District.

SEC. 2.—Each local organization shall be known as the Stanford Alumni Club of ———.

SEC. 3.—The name "Associated Stanford Alumni Clubs" shall be used at all district and national meetings of alumni clubs.

SEC. 4.—An annual meeting of each district shall be held at such time and such place as the officers of each district shall designate.

ARTICLE V: NOMINATIONS AND ELECTIONS

SECTION 1.—The February issue of the *Stanford Illustrated Review* shall give notice of the annual nomination and election of officers of this Association. Said notice shall contain the names of the incumbent officers, and shall indicate the holdover members of the Alumni Council, and shall contain in full the provisions of this constitution relating to nominations and elections.

SEC. 2.—The Executive Committee shall each year appoint a nominating committee of five members of the Council, at least three of whom shall not be members of the Executive Committee. The nominating committee shall make its report to the Executive Committee each year by the fifteenth day of March.

SEC. 3.—Nominations may be made also by petition. A nominating petition must be signed by at least fifty members of the Association and must be filed in the office of the Secretary-Treasurer on or before the first day of April of the year for which the nomination is made, and shall be valid only if the consent of such petition is endorsed thereon by the person in whose behalf such petition is filed.

SEC. 4.—On or before the fifteenth day of April of each year, the Secretary-Treasurer shall mail to every member of this Association whose dues for the current year have been paid, an official ballot containing all the nominations, with the addresses of the nominees and the number of proposers of each, and said ballot shall be published in the April issue of the *Stanford Illustrated Review;* provided, however, that where no contests occur, the Secretary-Treasurer shall be empowered to cast the ballot.

SEC. 5.—Officers shall be elected at an annual election to be held at Stanford University on Alumni Day, between the hours of 9 o'clock A.M. and 12 o'clock NOON. The Executive Committee shall have charge of the election. The elector may cast a written ballot in person, or by mail, addressed to the Secretary-Treasurer, marked "Ballot" and disclosing the sender's name, and enclosing a ballot in a plain envelope. Ballots so received shall be opened and cast only during the hours of election. The respective candidates receiving the highest number of votes shall be declared elected. A tie vote shall be decided by lot.

SEC. 6.—No one whose annual dues are in arrears for the current year shall be entitled to vote or to hold office.

ARTICLE VI: DUES

SECTION 1.—The dues of the Association shall be $3.00 per year for each member thereof, which amount shall include a subscription to the monthly alumni publication, *provided, however, that for a second member of a family living in a house in which there is already one full membership, the dues, not*

including a subscription to the monthly alumni publication, shall be $1.50 per year.

SEC. 2.—A member, upon payment into the treasury of the sum of fifty dollars ($50.00), at any one time and for that purpose, shall be entitled to a life membership in this Association, including a life subscription to the monthly alumni publication, and shall not be liable for any further dues, *provided, however, that for a second member of a family living in a house in which there is already one full life membership, the life membership dues not including a life subscription to the monthly alumni publication, shall be $25.00.*

SEC. 3.—All members who, prior, to May, 1908, have paid $5.00, shall, if they desire, be exempt from further dues.

ARTICLE VII: FUNDS

SECTION 1.—The receipts from dues and from miscellaneous sources, and the interest from life memberships, shall be known as the current fund and shall be used for the current expenses of the Association.

SEC. 2.—At the end of each current year, or at prior time if so directed by the Executive Committee, all sums in the current fund in excess of two thousand dollars shall be transferred to the reserve fund. All sums thus transferred from the current fund to the reserve fund shall be deposited in trust with the Board of Trustees of Stanford University, to be invested.

The income earned by the reserve fund may be withdrawn from time to time as directed by the Alumni Council, to be used for the purposes of the current fund; but there shall be no such withdrawal during any one year of an amount in excess of the earnings of the reserve fund for the year next preceding the year of such withdrawal.

SEC. 3.—At such time as the reserve fund shall exceed the principal amount of twenty-five thousand dollars, then all sums in excess of said principal sum of twenty-five thousand dollars at the end of each current year may be used for the purposes of Stanford University at such time and in such amounts as may be determined by the Alumni Council, with the advice and consent of the Board of Trustees of the University.

SEC. 4.—The Alumni Council may accept donations of funds for the promotion of the purposes of the Alumni Association, and shall apply such donated funds according to the conditions specified by the donor. Such funds shall be deposited in trust with the Board of Trustees of Stanford University, and may be withdrawn by the Alumni Council and expended only as specified in the trust created by the donor.

ARTICLE VIII: MEETINGS

SECTION 1.—Of the Association. The annual meeting shall be held on Alumni Day of each year, and other meetings of the Association shall be held at such time as the Executive Committee shall determine. Notice of meetings of the Association shall be mailed by the Secretary to all members of the Alumni Council and to all alumni clubs, at least thirty days prior to the time of holding the meeting. All meetings of the Alumni Association shall be held at Stanford University.

SEC. 2.—Of the Alumni Council. There shall be a spring meeting of the Alumni Council each year at Stanford University, the exact time to be determined by the Executive Committee. Special meetings of the Alumni

Council may be called at any time by the President or by a majority of the Executive Committee, but notice of such meetings and of the regular meeting must be mailed to each member at least four weeks in advance. In the case of special meetings, the Secretary-Treasurer shall specify the object or objects for which the meeting is called, and no business shall be transacted at such meeting other than that specified in the notification of the meeting.

SEC. 3.—Of the Executive Committee. The Executive Committee shall meet at regular stated intervals to be determined by the committee. Special meetings shall be held at the call of the President of the Alumni Council, or of a majority of the members of the committee, the place and purpose of the meeting to be designated in the notice of the meeting.

ARTICLE IX: QUORUM

A quorum shall consist, in the Association, of twenty-five members; in the Alumni Council, of twelve members; and in the Executive Committee, of five members.

ARTICLE X: AMENDMENTS

Any proposition to alter or amend these articles of Association must be proposed in writing, signed by one hundred members, and submitted to the members by mail in printed form by the Secretary-Treasurer, and voted upon in the same manner as are nominations for officers, and adopted by a majority vote.

ARTICLE XI: RULES OF ORDER

Robert's Rules of Order shall govern in all cases not provided for by the foregoing by-laws.

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